

2015 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons

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Activities of the International Atomic Energy Agency relevant to article IV of the Treaty on the Non-Proliferation of Nuclear Weapons

**Background paper prepared by the Secretariat of the
International Atomic Energy Agency**

Executive summary

The International Atomic Energy Agency (IAEA) has been a global intergovernmental organization for international cooperation in the peaceful uses of nuclear energy since its establishment in 1957 as an independent organization within the United Nations (UN) system. Starting with 68 Member States in 1957, the IAEA's membership had risen to 151 at the time of the 2010 Review Conference for the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and today it stands at 164.

The paper describes the activities of the IAEA, in line with its Statute and the decisions of its policy making organs, which the IAEA has endeavoured to fulfil its functions related to fostering international cooperation in the peaceful uses of nuclear energy since the last NPT Review Conference in 2010.

A wide array of the IAEA's activities is relevant to Article IV of the NPT. These areas of congruence are explained in Section 1 of this paper. The IAEA's major goals and objectives relevant to Article IV of the NPT are highlighted in Section 2.

Through its Technical Cooperation (TC) Programme, which is described in Section 3, the IAEA responds to its Statute's call to make more widely available the benefits of nuclear science and technology for peaceful purposes, with particular emphasis on the needs of developing countries. Currently, 140 Member States/Territories avail the benefits of the IAEA's TC programme.

Nuclear science and technology offer many unique and cost-effective tools in response to rising demand for energy, food, water, health care and industrial output which reflect global demographic and economic trends. As such, related activities of the IAEA carried out through a number of scientific, technical and legal services of the IAEA are outlined in Section 4.

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Conclusions contained in Section 7 note the need for continuing support and commitment to the IAEA's activities relevant to Article IV of the NPT.

1. International cooperation for the peaceful uses of nuclear energy: the International Atomic Energy Agency and the Treaty on the Non-Proliferation of Nuclear Weapons

Article II of the IAEA's Statute stipulates that "[t]he Agency shall seek to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world." To fulfil this objective, the IAEA is authorized by Article III.A of its Statute to carry out the following functions:

- "1. To encourage and assist research on, and development and practical application of, atomic energy for peaceful uses throughout the world; and, if requested to do so, to act as an intermediary for the purposes of securing the performance of services or the supplying of materials, equipment, or facilities ...,"
- "2. To make provision, in accordance with this Statute, for materials, services, equipment, and facilities to meet the needs of research on, and development and practical application of, atomic energy for peaceful purposes, including the production of electric power, with due consideration for the needs of the underdeveloped areas of the world;"
- "3. To foster the exchange of scientific and technical information on peaceful uses of atomic energy;"
- "4. To encourage the exchange of training of scientists and experts in the field of peaceful uses of atomic energy."

Article IV of the NPT states:

- "1. Nothing in this Treaty shall be interpreted as affecting the inalienable right of all the Parties to the Treaty to develop research, production and use of nuclear energy for peaceful purposes without discrimination and in conformity with Articles I and II of this Treaty."
- "2. All the Parties to the Treaty undertake to facilitate, and have the right to participate in, the fullest possible exchange of equipment, materials and scientific and technological information for the peaceful uses of nuclear energy. Parties to the Treaty in a position to do so shall also co-operate in contributing alone or together with other States or international organizations to the further development of the applications of nuclear energy for peaceful purposes, especially in the territories of non-nuclear-weapon States Party to the Treaty, with due consideration for the needs of the developing areas of the world."

The functions of the IAEA predate Article IV of the NPT, in which the rights of all parties to peaceful nuclear cooperation are confirmed, as it contains an obligation of the parties to facilitate the fullest exchange of equipment, materials, scientific and technological information and to co-operate in contributing to the further development of the peaceful uses of nuclear energy.

While the IAEA is not specifically referred to in Article IV of the NPT, it is widely considered to be the principal means of transfer of technology by

international organizations referred to in Article IV.2 of the NPT. The importance of the IAEA's work in the promotion of peaceful uses of nuclear science and technologies has been acknowledged in the final documents of several NPT Review Conferences.

2. International Atomic Energy Agency framework for peaceful nuclear cooperation

2.1. International Atomic Energy Agency strategic goals

Implementation of Article IV of the NPT emphasizes a number of core activities which are also addressed by the Medium Term Strategy (MTS) 2012-2017 of the IAEA. The MTS provides overarching guidance and serves as a roadmap to the IAEA's activities during this period by identifying priorities among and within programmes based on such considerations as recent technological trends, emerging needs and the political, economic and social background. The MTS 2012-2017 also serves as a general framework and guide for the preparation of three programme and budget cycles of the IAEA.

The MTS 2012-2017 says that in order to achieve its strategic objectives, some of them also acknowledged in the final document of the 2010 NPT Review Conference, the IAEA will effectively and efficiently share experience, lessons learned and good practices with Member States, it will promote technology transfer consistent with the IAEA Statute and disseminate good practices from accumulating experience and research so that successes are replicated as quickly as possible and failures are avoided. All of these actions are pursued in a one-house approach manner by the IAEA Secretariat to avoid duplications and take advantage of synergies in the pursuit of the IAEA's thematic strategic objectives.

2.2. Mechanisms for implementation

The IAEA endeavours to meet the goals of the MTS through the provision of a body of scientific, technical, legal, advisory, and support services to its Member States. The services underpin collective efforts for the safe, secure and peaceful promotion of nuclear science and technology. The principal delivery mechanism is the IAEA's Technical Cooperation (TC) Programme. This programme is developed and managed jointly by the Member States and the Secretariat. All parts of the IAEA play their respective roles in the programme. In addition, as part of the IAEA's regular programme of activities, there are other channels for provision of services to Member States.

3. International Atomic Energy Agency Technical Cooperation Programme

3.1. Overview

The IAEA's TC programme is unique in the UN system in that it combines significant technical and developmental competencies for the benefits of Member States. It seeks to forge human and institutional capacities in Member States, so that they can safely and securely maximize the utilization of nuclear technologies to address challenges to sustainable socioeconomic development. As a result, the TC programme contributes to national, regional and international development. The TC programme also contributes to the achievement of the UN Millennium Development Goals, the post 2015 sustainable development agenda, and to the Plan of Implementation of the World Summit on Sustainable Development.

All IAEA Member States are eligible for support, although in practice TC activities tend to largely focus on the needs and priorities of developing countries. The TC programme priorities are established at the national level through the Country Programme Framework (CPF) process, which takes into consideration national development plans, and at the regional level by regional strategic frameworks and profiles and agreed regional priorities. As national and regional priorities change over time, the TC programme is designed to adapt and respond to unforeseen developments and evolving situations.

The goal of the TC programme is to promote tangible socioeconomic impact in areas where the peaceful application of nuclear technology holds a comparative advantage. The programme seeks to promote sustainability and self-reliance. Projects must address an area of real need in which there is a national programme and government commitment. The guiding vision of the programme is that Member States achieve the human and institutional capacities they need in order to address local needs and global issues through the safe utilization of nuclear technologies.

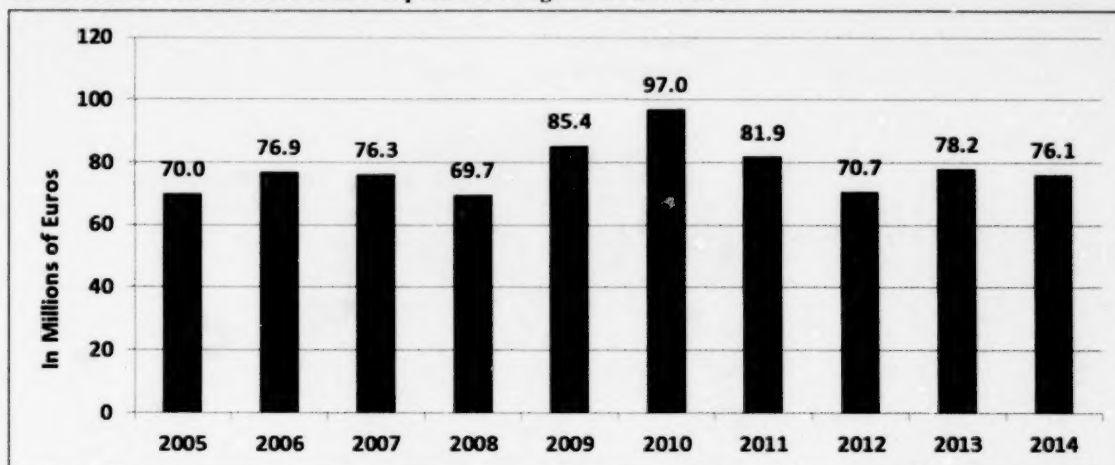
The TC programme is based on more than five decades of dialogue and interaction with Member States and a track record of achievements in the field. It focuses on improving human health, supporting agriculture and rural development, helping water resource management, advancing sustainable energy development, including the option of nuclear power for electricity, addressing environmental challenges, and promoting nuclear safety and security.

The TC programme aims to build partnerships at every level, from local counterparts up to other international organizations, in order to leverage all available support. The IAEA is increasingly involved in UN Development Assistance Framework (UNDAF) development processes. This allows the IAEA to identify areas where joint programming with UN stakeholders can achieve greater socioeconomic impact. The IAEA also engages in Practical Arrangements with relevant UN organizations, and encourages Member States to identify and integrate potential partnerships in the CPFs.

3.2. Resources for the Technical Cooperation Programme

The administrative costs of the TC programme and its in-house technical support are borne by the IAEA's Regular Budget. The cost of TC project components and their delivery is funded by voluntary contributions from Member States. The annual target for contributions to the Technical Cooperation Fund (TCF) is set two years in advance, following consultations among Member States. Since 2005, the TCF target has increased from €55.5 million, to €69 million in 2014. The total resources available to the TC programme during the same period have increased from €70 million to €76.1 million.

Figure 1
Total resources for the Technical Cooperation Programme 2005-2014



3.3. Technical Cooperation Programme in 2014

In 2014, the first year of the 2014-2015 TC programme cycle, 435 new national projects, 96 new regional projects and 6 new interregional projects were initiated, while 146 projects were closed. Active projects total 1475, including 237 projects in closure.

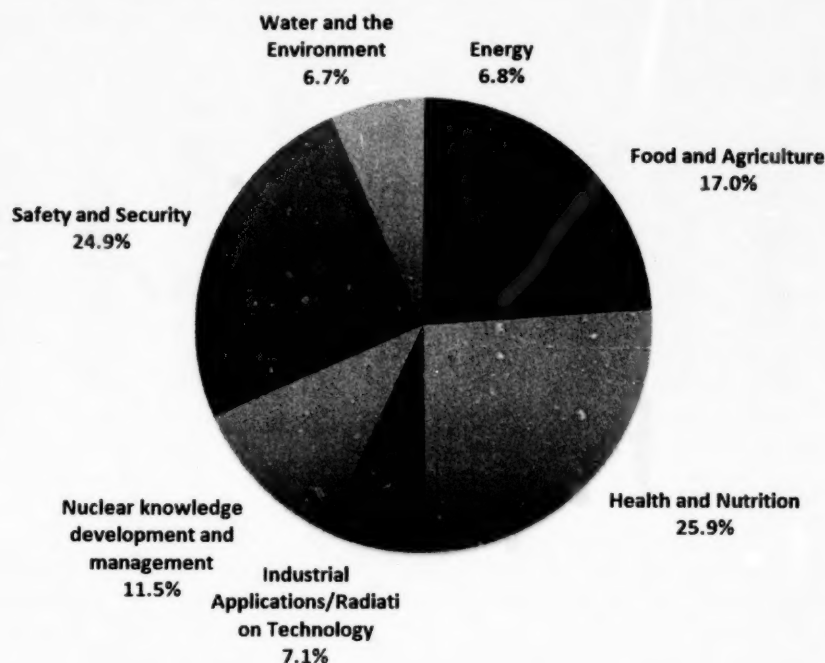
Total TCF resources (including TCF payments for previous years and income) amounted to €64.1 million. However, resources remain insufficient for keeping pace with the requests for support. For example, project components totalling €29.9 million remained unfunded in 2014.

3.4. Recent indicators of programme delivery

The TC programme as a whole disbursed a total of €74 million in 2014 and achieved an implementation rate of 78% for the year 2014. The programme delivered support to 124 countries and territories; 3461 expert and lecturer assignments were carried out, 5285 participants attended meetings, 2830 people took part in 187 training courses and 1677 benefited from fellowships and scientific visits.

The largest single sector of the TC programme in 2014 was health and nutrition, accounting for 25.9% of the programme. The second largest sector was safety and security with 24.9%, followed by food and agriculture at 17%.

Figure 2
Overall disbursements by technical field for 2014



3.5. Regional programming and profiles

The differing regional priorities are reflected in the diverging emphases of different regions in their choice of sectors for national and regional projects. For example, health and nutrition accounted for 26.8% in Africa, 34.7% in Europe 25.1% in Latin America and 22.1% in Asia and Pacific. Food and agriculture shows a greater degree of differentiation with 27.3% in Africa, 16.2% in Asia and the Pacific, 17.6% in Latin America, and just 2.7% in Europe.

The IAEA develops the TC programme to take into account the support that can be garnered through strategic frameworks for regional cooperative planning in Africa, Asia, Europe, and Latin America and the Caribbean. Regional centres of expertise play an important role in sharing the benefits of nuclear science and technology. Through their participation in regional projects, Member States with more developed nuclear sectors share their knowledge and facilities with other countries in the region with a lesser degree of development.

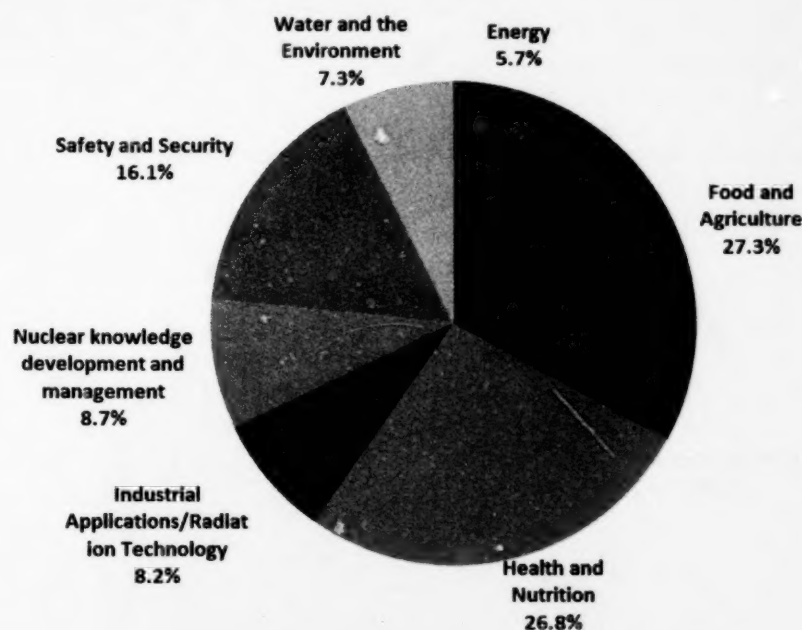
The 2014-2015 TC programme was formulated with the support of strategic frameworks for regional cooperative planning for Africa, Europe and Latin America and the Caribbean, developed by the Member States themselves. These frameworks, have served as the basis for the regional components of the 2014-2015 programme, and are important planning tools for setting regional cooperation activities.

3.5.1. Africa

Over the last five years the TC programme disbursed €107 million to 40 African States, of which 23 are least developed countries. A total of 4684 participants from Africa attended training courses and there were 3125 fellowship and scientific visitor assignments. As of 31 December 2014, disbursements amounted to €24.9 million.

Figure 3

Disbursements by technical field for 2014 — Africa



In Africa, meeting basic human needs remains the focus of the TC programme. Considerable support was provided in the area of food and agriculture, helping Member States to achieve food security. Water availability remains a challenge in the region, and the IAEA has provided several regional and national projects, including a regional project on water resource management for the Sahel region. This project covers five aquifers and river basins which are shared by 15 African countries.

Institutional capacity-building for human health is also a key area for Africa, and here the focus is on developing human resources through education, training and the provision of expert services. With IAEA support, many African Member States have successfully developed institutions and training centres. Within the framework of the African Regional Co-operative Agreement for Research, Development and Training Related to Nuclear Science and Technology (AFRA), 26 Regional Designated Centres (RDCs) in Africa have been established, providing training and expert services for regional development in the fields of human health, food and agriculture, industry, safety and security, energy and environment. The IAEA continues to support the RDCs through the TC programme.

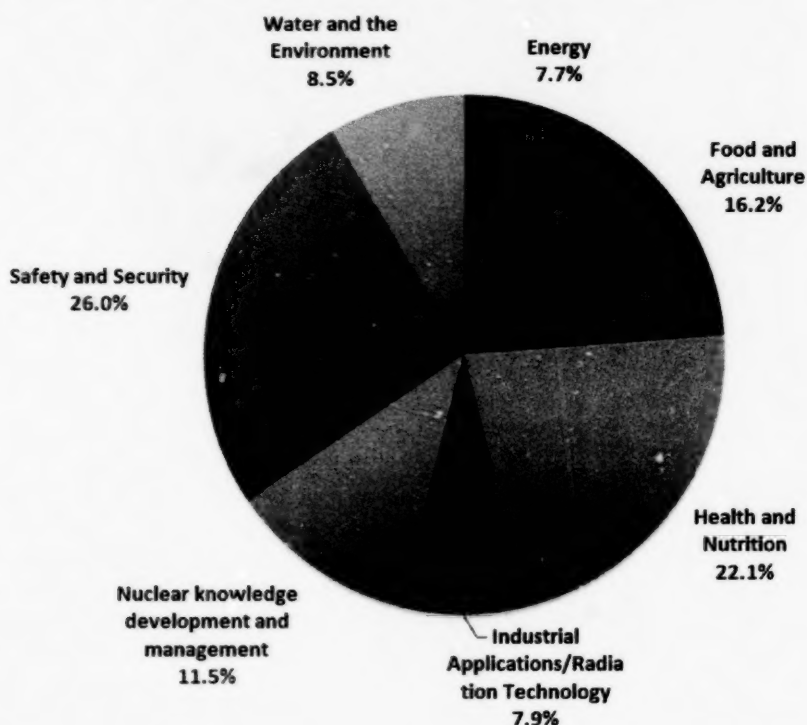
Relevant regional institutions with technical capacity join the global efforts which were mobilized to respond to the Ebola outbreak and the IAEA has contributed through the provision of emergency assistance; efforts are underway in the establishment of a regional network and warning systems to respond to similar future outbreaks.

3.5.2. *Asia and the Pacific*

During the last five years, a total of €87.8 million was disbursed through the TC programme to 32 States from the Asia and the Pacific region of which 7 are least developed countries. The IAEA trained 4349 participants from the region and supported 2371 fellowship and scientific visitor assignments. As of 31 December 2014, disbursements amounted to €19.6 million.

Figure 4

Disbursements by technical field for 2014 — Asia and the Pacific



In response to the region's growing need for energy and the interest of Member States in the region in nuclear power, the IAEA support in the area of energy is increasing with emphasis on developing Integrated Work Plans (IWPs) in newcomer countries.

In the area of food security, the IAEA has continued its support in strengthening competencies in soil and water management, crop nutrition and

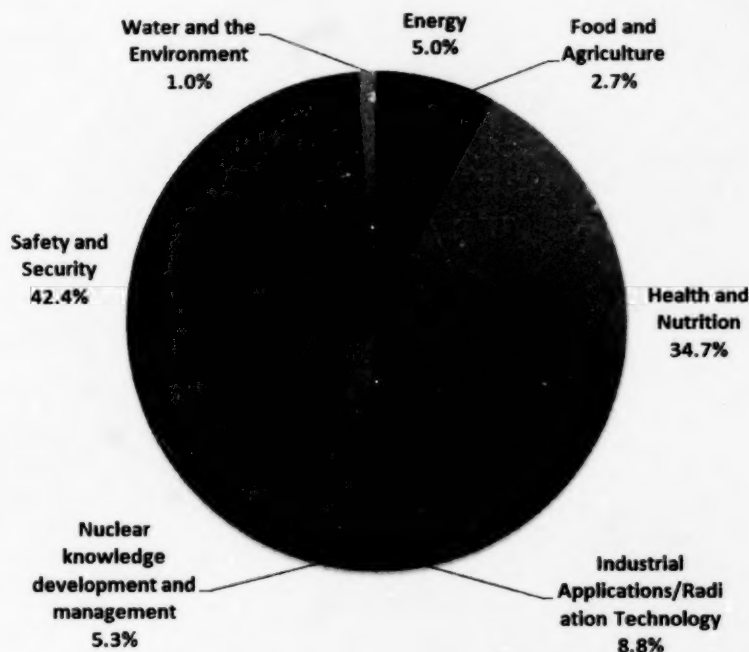
mutation breeding. Enhancing agricultural productivity and developing suitable crop varieties tolerant to drought and salinity and adaptable to climate change remains a regional priority. Animal production and health assistance has been the focus in building capacities especially the early detection and control of transboundary animal diseases (TADs), including those with zoonotic impact. Specifically, the IAEA is helping Member States in the region to establish national and regional networks that enable early response to, and control of TADs and that facilitate eradication programmes for some zoonotic diseases.

3.5.3. Europe

Over the last five years, the TC programme disbursed a total of €111 million to 29 States from Europe. The IAEA trained 3221 participants from the region, and there were 1483 fellowship and scientific visitor assignments. As of 31 December 2014, disbursements amounted to €11.9 million.

Figure 5

Disbursements by technical field for 2014 — Europe



A key priority for Member States in the Europe region is to strengthen nuclear and radiation safety infrastructure in accordance with the IAEA Safety Standards, emphasizing safety of nuclear installations; control of radiation sources; and radioactive waste management and decommissioning. The IAEA has also supported Member States in the Europe region to change the fuel in research reactors from high enriched uranium (HEU) to low enriched uranium (LEU), with the overall aim of reducing proliferation risks.

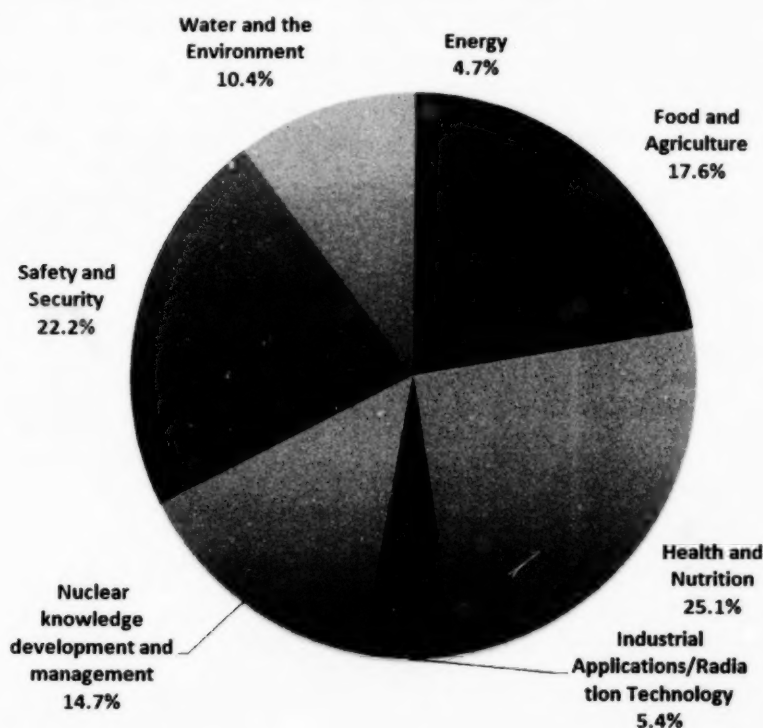
The European Union (EU) is a key partner. The European Commission has provided extrabudgetary contributions on behalf of the EU to several projects in the region, financed by the former Technical Assistance to the Commonwealth of Independent States (TACIS) programme, and more recently by the Instrument of Pre-Accession Assistance (IPA).

3.5.4. *Latin America and the Caribbean*

Over the last five years, the TC programme disbursed €65 million to 22 States in the Latin America and Caribbean region. The IAEA trained 2747 participants from the region and there were 1573 fellowship and scientific visitor assignments. As of 31 December 2014, disbursements amounted to €11.9 million.

Figure 6

Disbursements by technical field for 2014 — Latin America



Nuclear technologies have been applied to improve efficiency in fertilization, water use, biological nitrogen fixation, crop and livestock improvement, pest and disease control, and for quality control of food products. In the health sector, efforts have been made to improve human resource development, in particular with regards to the efficiency and quality of new techniques for the diagnosis and treatment of diseases, especially cancer, and to ensure the availability of various radiopharmaceuticals required for diagnosis and treatment of cancer and other diseases.

Substantial progress has been made in recent years in the establishment of radiation safety and regulatory infrastructure in the Latin America region, with a focus on the protection of patients, workers, public and the environment. Support has also been provided in the implementation of Long Term Operation programmes in Nuclear Power Plants (NPP) to ensure their safe operation.

3.6. Programme of Action for Cancer Therapy

In 2004, the IAEA established the Programme of Action for Cancer Therapy (PACT) to enable developing countries to introduce, expand or improve their cancer control capacity and services by integrating radiation medicine into a sustainable, comprehensive cancer control programme.

PACT brings together all of the IAEA's cancer-related expertise and services to support the building and strengthening of a global coalition of partners that implement cancer control projects and mobilize funds in a coordinated manner. It has established formal partnerships with several high-profile organizations in the public, private and non-governmental sectors, including inter alia the World Health Organization (WHO), the International Agency for Research on Cancer (IARC) and Union for International Cancer Control (UICC). Working with its partners, PACT builds capacity and long term support for continuous education and training of cancer care professionals, as well as for community based action by civil society to combat cancer. To date, PACT has conducted over 65 comprehensive assessment missions in low and middle income (LMI) Member States. With an increased global focus on non-communicable diseases including cancer, PACT has raised the equivalent of US \$32 million in funds and gifts since 2004. To address the cancer workforce shortage in LMI countries, PACT launched in 2010 an e-learning pilot project, the Virtual University for Cancer Control (VUCCnet), to establish a regional education and training network in Africa. This project seeks to support and enhance national programmes to build human resource capacity in cancer control and involves six African countries.

3.7. Challenges facing the Technical Cooperation Programme

The contribution that nuclear science and technology can make to national development is not always well recognized and nuclear development issues are frequently considered separately from mainstream development issues. This can result in limited integration of TC projects in national development plans. The IAEA has addressed this issue by requesting Member States to submit an integrated programme at the national level rather than individual projects, thus leading to a more cohesive and efficient delivery of assistance to Member States. In addition, Member States are advised to establish linkages between nuclear science and technology and their national developmental plans through their CPF, in order to ensure synergies and complementarities with conventional techniques and programmes. Programme priorities are established at the national level through the CPF process, which takes into consideration national development plans, and at the regional level by regional strategic frameworks and profiles and agreed regional priorities.

The IAEA works to raise public awareness of its TC activities and carries out outreach to appropriate partners in the UN system. Closer partnerships and linkages at the national level with other partners from the UN system are an effective means

to leverage the benefits of nuclear technology in addressing development issues. The IAEA is increasingly involved in United Nations Development Assistance Framework (UNDAF) processes. This allows the IAEA to identify areas where joint programming with UN stakeholders can achieve greater socioeconomic impact, and also contributes to raising the awareness of UN system organizations of the development role of the IAEA.

In light of the increasing relevance of nuclear science and technology for development, and the increase in the numbers of Member States and their requirements for TC support, means and mechanisms, it is important to ensure that resources for TC are stable, assured and predictable.

4. Promotion of peaceful nuclear cooperation

4.1. Nuclear energy

The principal peaceful benefit that the founders of the IAEA had in mind when establishing the organisation in 1957, was safe and reliable access to nuclear power. This remains the most prominent peaceful application of nuclear energy and the one with the greatest quantifiable economic benefit. In accordance with priorities of IAEA Member States, the significance of this benefit is reflected in the Medium Term Strategy for 2012-2017, in which the first high-level objective is "Facilitating access to nuclear power".

The number of operational nuclear power reactors in operation worldwide at the end of 2014 was 438, with a total generating capacity of nuclear energy of 375.9 gigawatts-electric (GW(e)). During 2014, five nuclear power reactors were connected to the grid (three in China, one in Argentina and one in Russia). In 2011, construction started on four NPPs. In 2012, there were seven construction starts; ten new constructions commenced in 2013 and, in 2014, there were three construction starts. This results in 70 reactors under construction at the end of 2014, of which 46 were in Asia.¹

4.1.1. Capacity-building for energy analysis and planning

The IAEA works with its Member States to develop capacity-building on energy system planning and the assessment of the potential contribution that nuclear power could make to a sustainable energy mix. Two studies in this area were completed in 2014 comprising pre-feasibility studies for introducing nuclear power in Jordan and Egypt. Additionally, during 2014, approximately 600 energy analysts and planners from over 50 countries were trained in the use of the IAEA's analytical tools for conducting national and regional studies on future energy strategies and the role of nuclear power.

Enhancement of IAEA's analytical tools for energy system analysis and planning continue to be undertaken and are now being used in research and planning institutions in 130 countries. The models and training provided by the IAEA cover energy demand, supply, environmental impacts, finance, system optimization, and indicators for sustainable development. They are 'technology neutral', i.e. there is no special focus on nuclear power. For some Member States using the models,

¹ As of March 2015, there were 439 nuclear power reactors in operation in the world and 69 under construction.

nuclear power may not currently be an option due to high capital costs, but it is essential that the models still help them identify effective energy strategies.

Each year the IAEA prepares two projections of future nuclear power developments, one 'low' and one 'high'. The projections developed in 2014 expect the global capacity to increase from 374.9 GW(e) at present to 401 GW(e) and to 699 GW(e) by 2030 in the low and high cases respectively. Globally the low scenario projected growth shows a relatively small increase of 8% by 2030 compared to the present day and on a regional basis there is even a projected decline in capacity in some cases. The strongest projected growth of 88% by 2030 is in regions that already have operating NPPs, led by Asian countries.

The IAEA conducts techno-economic analyses and produces publications on the peaceful uses of nuclear energy in climate change mitigation and fostering sustainable development. In 2014, the IAEA published a new edition of the report *Climate Change and Nuclear Power*, a special issue of a leading journal on the role of nuclear energy in sustainable development, a journal special issue² and TECDOC on the comparative assessment of the geological disposal of carbon dioxide and radioactive waste. These include the studies and deliberations of, among others, the Intergovernmental Panel on Climate Change (IPCC), the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) and the Commission on Sustainable Development (CSD). Most recently the 20th session of the Conference of the Parties was held in December 2014 in Lima, Peru where the IAEA had an information booth and participated in a UN Side Event.

4.1.2. *Assisting countries considering or introducing nuclear power*

At present, over 30 countries are considering a nuclear power programme or are introducing nuclear power into their energy mix.³ The IAEA supports the Member States interested in exploring options for the use of nuclear power and for implementing nuclear power programmes through development of documents, workshops and training courses, expert missions and review services. A key document entitled "*Milestones in the Development of a National Infrastructure for Nuclear Power*" was revised recently for publication in 2015 to take into account the lessons learned from the Fukushima accident, the development of other IAEA documents such as the IAEA Safety Guide on the nuclear safety infrastructure and feedback from Integrated Nuclear Infrastructure Review (INIR) missions.

In 2012, the United Arab Emirates (UAE) became the first country in 27 years to start the construction of a first NPP, while Belarus and Turkey, which had previously signed contracts, continued their preparation for licensing construction. In 2013, Bangladesh began site preparation work for its two-unit Rooppur NPP and Jordan selected a vendor for its first NPP. Turkey signed two cooperation agreements for its second project, and Viet Nam prepared feasibility studies of two sites for NPPs in Ninh Thuan Province.

In 2014, Belarus began construction of the second unit at the Ostrovets site, becoming the second country in the past three decades to begin construction of its

² See *International Journal of Global Energy Issues*, Vol. 37, 2014.

³ In 2010, there were approximately 60 Member States that had expressed interest in the introduction of a nuclear power programme.

first NPP. A number of newcomer countries made progress towards the introduction of nuclear power into their energy mix: Turkey approved the Environmental Impact Assessment Report for the Akkuyu Project; Viet Nam approved the Master Plan on nuclear power infrastructure and development; Kenya prepared a pre-Feasibility Study; and Poland approved the national Nuclear Power Programme and issued a contract for an owner's engineer. All those countries have extensively used the services and training activities proposed by the IAEA.

4.1.3. Support for existing nuclear power programmes

Continuously improving the performance, safety and security of NPPs and fuel cycle facilities throughout their life cycles is essential. The IAEA develops and publishes standards and guidelines. On request, expert teams are assembled to conduct peer reviews of facilities to identify potential improvements. Databanks on technologies and operating experience are maintained and training courses are offered for sharing operating experience, new knowledge and best practices.

For the front end of the nuclear fuel cycle, information on uranium resources, exploration, mining and production is assembled and disseminated in order to promote best practices in uranium mining and production to minimize environmental impacts. Regarding the back end of the fuel cycle, inventories of spent fuel are increasing owing to reprocessing capacity constraints. Several Member States are making progress towards the operation of disposal facilities for spent nuclear fuel/high level waste. The IAEA facilitates the development of guidance and exchange of information on methods to increase the capacity of existing facilities and to accommodate extended interim storage durations.

To improve the flow of knowledge and experience among those engaged in waste management and disposal and to encourage organizations in developed Member States to contribute to the activities of Member States requiring decommissioning and waste management assistance, the IAEA has established a number of networks.

4.1.4. Innovation

The IAEA's International Project on Innovative Nuclear Reactors and Fuel Cycles (INPRO), which was launched in 2000, is continuing to grow and now comprises 41 participants (Member States and the European Commission) with the addition of Bangladesh and Thailand as the latest members. The IAEA provides INPRO services to Member States that help build their capacity to perform detailed nuclear energy system (NES) sustainability assessments. These INPRO services consider all aspects that are essential to sustainable implementation of nuclear power, including an introduction to Safeguards by design (SBD) principles and good practices in non-proliferation. INPRO also conducts, in partnership with Member States, specific collaborative studies of institutional and technical innovations that support long term NES sustainability and international collaboration.

The IAEA promotes and favours the use of innovative reactor technologies not only for the historical role as producers of electricity, but also for non-electrical process heat applications (e.g. seawater desalination, hydrogen production, district heating, tertiary oil recovery, etc.) which have significant potential in future, ensuring worldwide energy and water security, supporting sustainable development.

Another important area is represented by the support to the Member States in the field of verification and validation of advanced models and simulation tools to be used for the design and safety analysis of innovative nuclear energy systems.

4.1.5. Research reactors

Member States continue to be supported in various aspects related to building, maintenance and utilization of research reactors through networks/coalitions, outreach activities, training workshops and publication of guidance documents. This includes assistance related to research reactor ageing, modernization and refurbishment. The IAEA continues to support the minimization of the civilian use of HEU through the conversion of HEU fuel to LEU and the repatriation of HEU to country of origin. By the end of 2014, 92 research reactors had been converted to LEU fuel or confirmed as shut down, including one molybdenum-99 production facility that used HEU. Since 2010, 305 kg of fresh HEU from seven countries, and 753 kg of spent HEU from nine countries has been removed and shipped back to the country of fuel origin under the auspices of the Russian Research Reactor Fuel Return (RRRFR) Programme. By the end of 2014, liquid HEU fuel was discharged from the FOTON research reactor in Uzbekistan and the implementation of the site decommissioning was launched. An agreement was finalized to support the conversion of HEU fuel to LEU in the Chinese-origin miniature neutron source reactor (MNSR) in Ghana, and the IAEA initiated efforts to provide assistance in the removal and transportation of the irradiated HEU core from Ghana to China. A meeting on MNSR Conversions from HEU to LEU fuel was held in December 2014 in which representatives from each country hosting an MNSR, as well as stakeholders supporting both the conversion and HEU removal activities, participated.

4.2. Nuclear applications

Nuclear science and technology offer many unique and cost effective tools, and have the potential for positive socioeconomic impact in responding to development challenges in key areas such as food and agriculture, human health and industries as well as water resource and environmental management. This has led to increased demands for science and technology based capacity-building assistance from Member States that do not have a nuclear power programme.

The IAEA has its own scientific laboratories located in Austria and Monaco. They play a fundamental role in supporting the aforementioned activities by providing the necessary scientific and technical expertise, equipment and resources.

4.2.1. Human health

The focus of the IAEA's Human Health programme is on enhancing capabilities for the prevention, diagnosis and treatment of health problems through the safe and effective application of nuclear techniques. From 2010 to 2015, the programme accounts for more than 22% of all TC projects. Since 2010, the Human Health programme has supported approximately 235 training courses covering all areas of its work that have been attended by more than 3800 trainees.

The rising prevalence in recent years of chronic and non-communicable diseases (NCDs) has led to an equally rapid rise in demand for technical assistance in the use of radiation medicine technologies to combat them. In an effort to

contribute to actions that reduce the burden of NCDs, the IAEA has joined the UN Interagency Task Force on the Prevention and Control of NCDs.

Recent years have witnessed remarkable developments in the field of radiation medicine; new diagnostic and treatment procedures have been broadly adopted by medical facilities around the world. While IAEA Member States have made noteworthy investments in radiation oncology, nuclear medicine and radiology, gaps in expertise remain, especially in low- and middle-income countries. In order to answer to those needs the IAEA has made relentless efforts in developing professional competences. The capacity-building efforts of radiation medicine have been focused in strengthening the abilities of the multidisciplinary teams of professionals involved in the practice of these specialties.

Today nearly every country in the world experiences a level of malnutrition that constitutes a serious public health risk. Between two and three billion people are malnourished, or are overweight or obese, or have some sort of micronutrient deficiency. The IAEA's work in nutrition focuses on improving infant and child nutrition to achieve long-term health and development benefits, based on evidence linking early life malnutrition to an increased risk of adult chronic NCDs, including cardiovascular disease, diabetes, and cancer.

The use of information and communication technologies has expanded the reach of the IAEA's education and training activities. Educational initiatives such as the Human Health Campus website provide teaching materials for self-directed learning for continuous professional development. Since its launch in 2010, over 716 000 pages have been viewed by users from over 170 countries.

The challenge of day to day management of cancer becomes even greater when doctors are unable to discuss difficult cases or confer with their colleagues. AFRONet is a telemedicine, a web-based platform that allows physicians from Canada, the United States and various African States to present challenging patients and share diagnostic information, such as CT scans and X-rays, as well as actual treatment plans for the patients with the goals of finding the best way to treat the patient. This service can be used on mobile phones as well, bridging the geographical gap and preventing the isolation of practitioners in small centres- especially those with a single radiation oncologist.

The IAEA dosimetry laboratory at its facilities in Seibersdorf, Austria, provides calibration and dosimetry verification services for radiotherapy machines that are used to treat cancer. Between 650 and 700 radiation beams are audited each year to ensure appropriate calibration of equipment and delivery of correct radiation doses in Member States, many of which have no other access to such services.

4.2.2. *Food and agriculture*

The IAEA and the Food and Agriculture Organization of the United Nations (FAO) have been working together to ensure food security for fifty years through the Joint FAO/IAEA Programme on Nuclear Techniques in Food and Agriculture. This programme assists in the safe and appropriate use of nuclear techniques and related biotechnologies to increase and sustain food and agricultural production as well as food safety. The Joint Division also provides support to emergency preparedness and response to nuclear and radiological incidents affecting food and agriculture, including agricultural countermeasures.

There has also been a substantial increase in the use of radiation as a replacement for chemical and other methods to treat foodstuffs for safety and phytosanitary purposes, which also generates access to export markets as well as employment.

The FAO/IAEA Agriculture and Biotechnology Laboratory (ABL), in Seibersdorf, provides scientific and technical support in the conception, adaptation and improvement of nuclear and related techniques and technologies, and strengthens capacity in the use of these applications through international cooperation in research and training. The laboratory also provides guidance on the introduction of analytical quality control and quality assurance measures in Member State laboratories, and training in the maintenance of equipment and instruments. During the past five years, services have been provided to 111 Member States and more than 750 trainees were trained at the Seibersdorf complex.

4.2.3. *Water resources*

Securing access to safe water for drinking water, as well as adequate freshwater supply for sanitation, food production and energy generation is an issue of increasing importance. Reliable hydrological information is required for the adoption of sound policies to successfully cope with climate change and reduced availability of water. Surface and ground waters are powerful tools for tracing processes in the water cycle, including the origin and pathways of rainfall and snowmelt to, and hydraulic interactions between, aquifers, lakes and rivers. Naturally occurring, stable and radioactive isotopes present precipitation. Isotope "fingerprints" in water help to cost-effectively assess and manage water resources.

The IAEA assists Member States in conducting water resources assessment projects using isotope and geochemical tools through the IAEA's TC and coordinated research projects (CRPs) in more than 65 countries. Numerous water professionals and technicians are trained each year in the use of advanced hydrological and geochemical methods, field sampling protocols, isotope data interpretation as well as laboratory analytical procedures. The IAEA has an Isotope Hydrology Laboratory in Vienna. The laboratory develops and improves analytical and sampling methods for the application of nuclear techniques and provides training and technical support to other laboratories in Member States to gain self-reliance in isotope analysis as well as in providing access to advanced analytical techniques.

4.2.4. *Environment*

To promote timely and informed environmental management and protection, the IAEA provides assistance in developing a greater understanding of, and better analytical capacities regarding key phenomena in marine and terrestrial environments. These phenomena include the movement and fate of various pollutants in the environment, with a particular focus on natural habitats, coastal zones and effects on marine organisms; the impacts of climate change and rising atmospheric concentrations of carbon on marine ecosystems and resources; and the movement, fate and environmental effects of pollutants released into the atmosphere by industrial and mining activities. The IAEA conducts these activities at its environmental laboratories in Monaco and Seibersdorf. The establishment, strengthening and coordination of worldwide networks of environmental

laboratories to address these issues are important areas of work. For example, the Analytical Laboratories for the Measurement of Environmental Radioactivity (ALMERA) network, which monitors environmental radioactivity worldwide, has expanded from 40 Member State laboratories in 2006 to 149 at the end of 2014.

The IAEA's Environment laboratories play a crucial role in assuring the quality of radionuclide, trace element and organic contaminant analyses through the coordination of intercomparison tests with laboratories around the world. They also develop, maintain and distribute international reference materials that serve as global benchmarks for the accurate analysis of radionuclides, trace elements, organic contaminants and stable isotopes in environmental samples.

4.2.5. *Radioisotope production and radiation technologies*

The IAEA supports the production of radioisotopes and related products for health care and industry, and for industrial applications of radiation technologies. Assistance in building the necessary scientific and technical capacities and infrastructure improves the availability of important radiopharmaceuticals that are essential in the diagnosis and treatment of diseases such as cancer. The IAEA also provides assistance in the use of radiation and radioisotopes to increase the safety, quality and environmental friendliness of industrial processes and products.

Since 2010, new production methods for diagnostic medical radioisotopes such as Molybdenum-99 and Germanium-68 have been explored.

Through a CRP, the IAEA has brought together international experts to explore the use of radiation technology to both treat waste and as a tool to produce novel bio-friendly materials.

Support was given to Member States in the application of radiography as a non-destructive testing tool. Since 2010, more than 200 TC projects have been implemented involving more than 300 fellowships and scientific visits. Over 100 participants in radiation processing technology and operations have also been trained. Coordinated research activities during this period involved teams from over 150 institutions, resulting in new technical methodologies and products for use in health care and industry, as well as R&D capacity-building in the participating teams.

4.2.6. *Nuclear sciences*

The IAEA provides nuclear data services which underpin nuclear energy as well as non-energy applications. An Isotope Browser App for mobile phones, recently developed is now available to researchers to make this important data more accessible.

Support is also provided in capacity-building in the area of accelerator applications to enable Member States to use these applications for a variety of analyses such as materials testing or in basic research and development.

The IAEA's Nuclear Sciences and Instrumentation Laboratory in Seibersdorf provides training facilities for Member States in the areas of accelerator applications and nuclear instrumentation. Since 2010, nearly 100 participants have been trained at the labs in nuclear instrumentation and support is extended to over 100 TC projects in the areas of accelerator applications and nuclear instrumentation.

4.2.7. *Renovation of the Nuclear Applications Laboratories*

Eight of the IAEA laboratories are located in Seibersdorf, Austria and support activities in food and agriculture, human health, the environment, and nuclear science. These laboratories serve all of the IAEA's Member States, with 151 of 164 Member States receiving support from these laboratories during the 2012-2013 biennium. Member State demands for assistance from the laboratories have been rising steadily in recent years, while new challenges such as climate change and the global cancer epidemic have emerged that require new techniques and technologies.

Since their establishment in 1962, however, the Nuclear Applications Laboratories in Seibersdorf have not received any comprehensive renovation or upgrading of equipment, and as a consequence they are increasingly struggling to meet the growing and evolving demands of Member States. For this reason, the IAEA has launched a project entitled the Renovation of the Nuclear Applications Laboratories (ReNuAL). The project formally commenced on 1 January 2014 with a target budget of €31 million to be reached through a mixture of IAEA regular budget and Member State extrabudgetary funds. The project plan consists of new building construction, the renovation of existing buildings, the acquisition of new laboratory equipment to replace aging or obsolete instruments, and infrastructure upgrades. The project is scheduled for completion in December 2017.

4.3. **Nuclear safety**

Maintaining a high level of nuclear safety is crucial in using nuclear technology to meet the essential needs of Member States. Ensuring safety is primarily the responsibility of each State. However, the recognition of far reaching and transboundary consequences of any severe nuclear or radiological emergency has led to the recognition of the central role of the IAEA in promoting international cooperation and in coordinating international efforts to strengthen global nuclear safety, in providing expertise and advice in this field and in promoting nuclear safety culture worldwide.

4.3.1. *The accident at the Fukushima Daiichi nuclear power plant*

Following the accident at the Fukushima Daiichi NPP (the Fukushima Daiichi accident), an IAEA Action Plan on Nuclear Safety (the Action Plan) was unanimously endorsed by Member States at the 55th regular session of the IAEA's General Conference in September 2011. The Action Plan defines a programme of work to strengthen the global nuclear safety framework and covers 12 overarching areas.

Significant progress has been made in several key areas under the Action Plan, such as assessments of safety vulnerabilities of NPPs, strengthening of the IAEA's peer review services, improvements in EPR capabilities, strengthening and maintaining capacity-building, and protecting people and the environment from ionizing radiation. The IAEA continued to share and disseminate the lessons learned from the Fukushima Daiichi accident through the analysis of relevant technical aspects. The IAEA organized eight international experts' meetings on relevant topics. Successful implementation has required the full cooperation and commitment of Member States, the Secretariat and other relevant stakeholders.

Significant progress has been made with the preparation of the IAEA Report on the Fukushima Daiichi Accident, which will be published in 2015. This report is intended to serve as a key technical reference document on the accident for years to come. Five working groups composed of approximately 180 internationally recognized experts from 42 Member States and several international bodies have been working on the preparation of five technical volumes of the report. A summary report is also being prepared.

4.3.2. *Safety standards*

By its Statute, the IAEA is authorized to establish safety standards and provide for their application. A complete set of 14 Safety Requirements was published and updated by the IAEA in order to achieve the Fundamental Safety Principles issued in 2006. They are supported by a number of Safety Guides, providing recommendations on how to comply with the requirements.

In 2011, after the Fukushima Daiichi accident, a process was initiated for a systematic review and, as necessary, revision of the safety standards. The review has confirmed the adequacy of the current Safety Requirements, revealed no significant areas of weakness; a small set of amendments were proposed to strengthen the requirements and facilitate their implementation. The process of developing and updating subsequent Safety Standards and Safety Guides continues. From 2010 to 2014, more than 40 standards were published.

4.3.3. *Emergency preparedness and response*

The IAEA's emergency preparedness and response (EPR) capability is based on the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, its Statute, the IAEA Safety Standards, decisions of policy-making organs, inter-agency agreements, and best international practice.

Following the Fukushima Daiichi accident, through the IAEA Action Plan on Nuclear Safety, the role of the IAEA has been extended to cover the assessment of potential emergency consequences and prognosis of possible emergency progression. The IAEA fulfils its response and preparedness roles through the IAEA's Incident and Emergency System and the Incident and Emergency Centre as the IAEA's focal point for EPR.

Since 2010, to assist Member States in strengthening their EPR arrangements, the IAEA published 10 publications covering lessons learned from past emergencies, generic procedures for response to emergencies at research reactors, EPR for countries embarking on a nuclear power, public communications and biosimetry in EPR, public protective actions in case of reactor emergencies and use of the International Nuclear and Radiological Event Scale (INES). It also finalized the revision of Safety Requirements for "Preparedness and Response for a Nuclear or Radiological Emergency".

The States Parties to the Convention on Assistance in Case of a Nuclear Accident or Radiological Emergency register their national assistance capabilities in the IAEA Response and Assistance Network (RANET), which was launched in 2006. Up to now 27 States Parties to the Convention (out of 112) registered their assistance capabilities in RANET.

The IAEA also provides the secretariat for the Inter-Agency Committee on Radiological and Nuclear Emergencies (IACRNE) comprised of 18 intergovernmental organizations and serves as inter-agency mechanism to ensure coordinated and harmonized international response to nuclear or radiological emergencies. The Committee is maintaining the Joint Radiation Emergency Management Plan of the International Organizations (JPLAN).

4.3.4. *Safety of nuclear installations and peer review missions*

The implementation of the Integrated Regulatory Review Service (IRRS), which commenced in 2006, is progressing. From 2006 to 2014, the IAEA conducted 60 missions in 44 countries. The issuance of the IRRS Guidelines in May 2013 and of the Self-Assessment of Regulatory Infrastructure for Safety (SARIS) Guidelines, further contributed to the effectiveness and efficiency of the programme. Since June 2011, the IRRS reviews have addressed the regulatory implications of the Fukushima Daiichi accident in an additional module.

Assistance is also provided to enhance self-assessment capabilities, to improve the exchange of information on operating experience and to address general operational safety aspects through a range of services, including the incident reporting systems for nuclear power plants, research reactors and fuel cycle facilities. The International Decommissioning Network provides a forum for sharing of practical decommissioning experience. The Design and Safety Assessment Review Service (DSARS) has been developed to enhance safety assessment capabilities and the Site and External Events Design (SEED) service for NPPs has been developed to enhance NPP site selection and characterization.

From 2010 to 2014, the IAEA's Operational Safety Review Team (OSART) missions visited 27 NPPs in 17 countries. The IAEA has also recently started conducting OSARTs of corporate organisations, as these can influence activities and behaviours at NPPs.

From 2010-2014, 19 INSARR and safety review missions and more than 30 safety expert missions have been conducted at research reactor facilities. Assistance was also provided to address the implications of the Fukushima-Daiichi accident on research reactors.

4.3.5. *Radiation and transport safety*

Every year, radioactive sources that are not under regulatory control ('orphan' sources) are discovered at ports of entry and metal recycling facilities around the world. Many Member States do not have sufficient expertise or resources to characterize such radioactive material or to re-establish regulatory control over orphaned sources. This challenge is addressed by promoting the wider application of the Code of Conduct on the Safety and Security of Radioactive Sources. Agreement to use the Code has continued to grow (123 States as of December 2014) and the IAEA has continued to assist Member States in its implementation. The IAEA offers assistance in the form of review or advisory missions to help States establish/strengthen their regulatory infrastructure to improve control of radiation sources. In addition, the IAEA provides States with the Regulatory Authority Information System (RAIS).

One important issue in transport is denial or delay of shipment of radioactive substances, such as radioisotopes used in nuclear medicine, industry and research. Due to the short half-life (in the order of hours or days), these expensive and often scarce radioisotopes lose their usefulness every hour they are delayed. The IAEA has worked with transport companies to sensitize them to measures that are taken to strengthen the safe handling and transport of radioactive material. Periodically, the IAEA has also facilitated informal discussions between coastal and shipping States with a view to maintaining dialogue and consultation aimed at improving mutual understanding, confidence building and communication in relation to the suitable and safe maritime transport of radioactive material. This has led to the practice of some shipping States and operators of providing timely information and responses to relevant coastal States in advance of shipments in order to address concerns regarding nuclear safety and security, including emergency preparedness, noting that the information and responses provided should in no case be contradictory to measures of nuclear security and safety of the shipment or of the Shipping State.

The IAEA is working with States on a regional basis to increase the State regulatory oversight capacity for the transport of radioactive material. By developing national and regional action plans and training and information provided by the IAEA, through transport regional projects in Africa, Asia Pacific, Latin America and the Mediterranean Region the IAEA encourages the States involved to collaborate to harmonise and increase their regulatory oversight capacities.

4.3.6. *International safety conventions*

All States operating land based NPPs, except one, are amongst the 77 Contracting Parties to the Convention on Nuclear Safety (CNS), which aims at achieving and maintaining a high level of safety. At the last review meeting held in March/April 2014, Switzerland submitted a formal proposal to amend Article 18 of the CNS (Design and Construction). The Contracting Parties decided by a two-thirds majority to submit the proposal to a Diplomatic Conference. The Conference met at the IAEA's Headquarters of the IAEA, Vienna, Austria, on 9 February 2015 and was attended by 71 Contracting Parties. The Conference adopted by consensus the "Vienna Declaration on Nuclear Safety", which includes principles for the implementation of the objective of the Convention to prevent accidents and mitigate radiological consequences.

The Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management aims to achieve and maintain a high level of safety worldwide in spent fuel and radioactive waste management resulting from civilian nuclear activities. The fourth review meeting of the Contracting Parties was held in May 2012 with the participation of 54 Contracting Parties. The review meeting noted that, although significant progress had been made since the last review meeting, challenges remained, including ensuring the robustness of the review process itself, the availability of spent fuel storage capacity and the delivery of disposal solutions. By the end of 2014, there were 69 contracting parties to the Joint Convention.

4.4. **Nuclear security**

Ensuring security is primarily the responsibility of each State. The IAEA has supported upon request, the efforts of States to improve and sustain nuclear security

whenever nuclear or other radioactive material is in use, storage and/or transport. This assistance has taken the form of capacity-building, publication of guidance documents, human resource development, peer reviews and advisory services, sustainability and risk reduction. The IAEA's central role in strengthening the global nuclear security framework has been recognised in the IAEA General Conference resolutions and in other events such as at the 2013 *International Conference on Nuclear Security: Enhancing Global Efforts*, organised by the IAEA at which a Ministerial Declaration was adopted. The IAEA will organize the next international conference at ministerial level in Vienna on 5-9 December 2016.

4.4.1. *Nuclear Security Plan*

The IAEA has been providing, upon request, assistance to States to support their national efforts to establish and continuously improve nuclear security since the early 1970s when it began providing ad hoc training in physical protection. The IAEA's first comprehensive plan of action to protect against nuclear terrorism, the Nuclear Security Plan (NSP), was approved in 2002 along with the creation of a voluntary funding mechanism, the Nuclear Security Fund, in order to help implement the Plan. Subsequent plans were adopted in 2005, 2009 and 2013. The current plan covers the period 2014-2017. Details of assistance provided under the various NSP are set out in the IAEA's annual Nuclear Security Reports, Annual Reports and in the latest report on the Implementation of the IAEA Nuclear Security Plan 2010-2013.

4.4.2. *Physical protection*

At the 2010 NPT Review Conference, the important role of IAEA in fostering international cooperation in nuclear security in establishing a comprehensive set of nuclear security guidelines, and in assisting Member States, upon request, in their efforts to enhance nuclear security was emphasized.

In 2005, the States Parties to the Convention on the Physical Protection of Nuclear Material (CPPNM) agreed an Amendment to the CPPNM which, upon its entry into force, will extend the physical protection measures of the CPPNM to nuclear facilities and material in peaceful domestic use, storage and transport. While the Amendment to the CPPNM has received strong political support and the number of the States Party which formally accepted the Amendment increased from 33 (as of December 2009) to 83 (as of December 2014), yet 17 more States Party to the CPPNM have to accept the Amendment for it to enter into force.

During 2010-2014, the IAEA conducted a total of 44 International Physical Protection Advisory Services (IPPAS) and International Nuclear Security Advisory Service (INSServ) missions, and a number of shorter technical visits. The IAEA has also developed a Nuclear Security Information Management System (NUSIMS).

Through its Incident and Trafficking Database (ITDB) programme, the IAEA collects information on incidents of illicit trafficking and other unauthorized activities and events involving nuclear and other radioactive material. The scope of the ITDB covers any acts or events that involve any type of nuclear or radioactive material outside legitimate control and protection. The database tracks events that occurred intentionally or unintentionally, including unsuccessful or thwarted acts. Between 2010 and 2014, 19 States joined the ITDB programme, bringing the total number of participating States to 128.

From 1 January 2010 to 31 December 2014, 847 incidents were reported to the ITDB; 769 of these were reported to have occurred during this period and the remaining 178 were reports of prior incidents. Seventy-one incidents reported to have occurred between 2010 and 2014 involved illegal possession and related criminal activities, including attempts to sell or smuggle nuclear material or radioactive sources.

4.4.3. *Other activities*

Acting in the framework of the NSP and at the request of States, the IAEA has undertaken the following activities in 2010-2014:

- Published new and revised recommendations and guidelines in the IAEA's Nuclear Security Series of publications, for use by States in the establishment of their national nuclear security systems.⁴ In 2010-2014, the IAEA issued 10 new publications bringing the total published to date to 22.⁵
- Developed an educational programme in nuclear security (published in 2010) which outlines a comprehensive Master of Science curriculum in nuclear security. The pilot project using the syllabus was completed in 2014.
- Provided training to nearly 400 international, regional and national training courses and workshops involving over 6200 participants.
- Published six e-learning modules covering technical aspects of nuclear security.
- Supplied some 1400 detection and border monitoring instruments to 20 States.
- Completed, or was in the process of completing, physical protection upgrades in a number of States.
- Developed long term national work plans that consolidate an individual State's range of nuclear security needs and the steps required to meet them in an Integrated Nuclear Security Support Plan (INSSP). As of December 2014, some 100 INSSPs had been approved, finalised or drafted.
- As part of its support for security measures at major public events, the IAEA assisted Belarus, Brazil, Cambodia, Colombia, Gabon, India, Malaysia, Mexico, Poland, South Africa, Sri Lanka, Ukraine, Zambia and Zimbabwe in their preparations to host major public events.

The IAEA's nuclear security activities are funded by its regular budget and by voluntary contributions, but mostly by the latter. Over the last five years, contributions made or pledged to the Nuclear Security Fund totalled more than €100 million.

⁴ In 2012, the Nuclear Security Guidance Committee (NSGC) was established open to all member States, to make recommendations on the development and review of these publications.

⁵ The publications included the lead publication in the Nuclear Security Series, Objective and Essential Elements of a State's Nuclear Security Regime (IAEA Nuclear Security Series No. 20), which was endorsed by the Board of Governors in September 2012, and Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities (INFCIRC/225/Revision 5).

4.5. Nuclear law

The global framework for nuclear law is expanding rapidly. Over the past decades, States have adopted more than a dozen international legal instruments in the fields of nuclear safety, security, safeguards and liability for nuclear damage. Recognizing that comprehensive national legal frameworks are essential for ensuring the safe and peaceful uses of nuclear energy, the IAEA assists States, upon request, in developing nuclear legislation, in all areas of nuclear law, in particular, nuclear safety, security, safeguards and nuclear liability. This assistance is provided through international, regional and national workshops and seminars, missions to create awareness of the international nuclear legal instruments, bilateral assistance in drafting national laws, training of individuals and the development of reference material, in particular, the two volumes of the IAEA Handbook on Nuclear Law.

From 2010 to 2014, more than thirty international, regional and national workshops were organized. Further, since 2010, country specific bilateral legislative assistance has been provided to more than seventy Member States.

At the request of Member States, individual training has also been provided since 2010 to more than three hundred legal experts through short term visits to IAEA Headquarters, as well as at the annual two-week IAEA Nuclear Law Institute.

5. International Atomic Energy Agency Peaceful Uses Initiative

The IAEA Peaceful Uses Initiative (PUI), launched in 2010, has become instrumental in raising extrabudgetary contributions which supplement Technical Cooperation Fund to support Technical Cooperation footnote/a projects and other unfunded projects of the IAEA in the areas of peaceful application of nuclear technology. Additional resources made available through the PUI have served to enhance the IAEA's ability to fulfil its priorities and statutory responsibilities and to meet the needs of Member States. Extrabudgetary contributions made through the PUI have been used to support a wide variety of IAEA activities aimed at promoting broad development goals in Member States, such as in the areas of food security, water resource management, human health, nuclear power infrastructure development and nuclear safety, many of which would have remained unfunded otherwise. PUI has also allowed the IAEA to be more flexible and quick in responding to shifting priorities of Member States as well as to unexpected needs or unforeseen emergency events as demonstrated in the aftermath of the Fukushima accident as well as the Ebola virus disease outbreak in western African States. To date, PUI has helped raise over 60 million Euros in financial contribution from 13 Member States and the European Commission, in support of more than 170 projects that benefit more than 130 Member States.

6. Assurances of supply of nuclear fuel

The establishment of an IAEA owned and operated Low Enriched Uranium (LEU) Bank was approved by the Board of Governors on 3 December 2010. Kazakhstan offered to host the IAEA LEU Bank. The IAEA Secretariat is well advanced in its work on the financial, legal and technical arrangements for establishing the bank. In 2014, a programmatic impact of seismic safety on the overall IAEA LEU Bank project was assessed to determine whether a geological fault that exists in close proximity to the proposed IAEA LEU Bank site has the potential to affect the safety of the IAEA LEU Bank. In early 2015, agreement was

reached between the IAEA and Kazakhstan on an ad referendum basis on the text of a Host State Agreement (HSA) for the IAEA LEU Bank, and separately with the Russian Federation, also on an ad referendum basis, on a draft Transit Agreement for the IAEA LEU Bank. Subject to final approval of the relevant parties, the two agreements will be submitted to the June 2015 Board of Governors for approval. In the meantime, the IAEA and Kazakhstan are working to complete several technical agreements subsidiary to the HSA needed for the IAEA LEU Bank.

The LEU Reserve under the IAEA's auspices was inaugurated on 17 December 2010, located at the International Uranium Enrichment Centre in Angarsk, Russian Federation.

On 10 March 2011, the IAEA Board of Governors approved a proposal for a Nuclear Fuel Assurance (NFA) by the UK, co-sponsored by the Member States of the EU, the Russian Federation and the USA, for the *Assurance of Supply of Enrichment Services and Low Enriched Uranium for Use in Nuclear Power Plants*.

7. Conclusions

Since the last NPT Review Conference in 2010, the IAEA has continued its efforts to respond to the evolving requirements of its Member States. The range of IAEA activities related to Article IV of the NPT is diverse. The IAEA plays unique role in making nuclear science and technology available to improve the lives of people everywhere.

The IAEA's roles, responsibilities and services have grown in response to the issues, challenges and opportunities facing its Member States and the international community. Its programme of work has increased in response to demands and expectations, as have its efforts to critically assess and optimize its services for reasons of effectiveness, and efficiency. As the IAEA looks to the future and responds to the demands and expectations of its Member States, it can expect to see increasing requests for support to the introduction of nuclear power, a greater focus on human health, food safety and security and sustainable management of natural resources.

To extend the reach of its activities and multiply their benefits, the requirement for agreements and working relationships with partner organizations in and outside the UN system is likely to grow.

In light of the expanding use of nuclear power and other nuclear applications for meeting basic human needs, expectations that all such nuclear activities should be carried out in the safest and most secure manner will continue. For the IAEA to fulfil these expectations, it will require the strong commitment and continued support of its Member States.

2015 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons

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Implementation of the Treaty on the Non-Proliferation of Nuclear Weapons: report submitted by Cuba

I. Introduction

1. Cuba's stance on nuclear weapons predates its accession to the Treaty on the Non-Proliferation of Nuclear Weapons as a State party on 4 November 2002. Cuba has never possessed, does not possess, has no intention of possessing and does not make, sell or supply weapons of mass destruction of any kind. Cuba advocates the prohibition and total elimination of nuclear weapons and other weapons of mass destruction as a priority.
2. In one part of the sovereign territory of the Republic of Cuba illegally occupied by the United States of America, in Guantánamo Province, over which the Cuban State does not exercise jurisdiction, there is a United States naval base. Accordingly, the Government of Cuba does not know whether the United States has emplaced, possesses, maintains or intends to emplace nuclear, chemical or biological materials or, even, nuclear, chemical or biological weapons in this illegally occupied Cuban territory.
3. As stated by Cuba in the declaration made on accession to the Non-Proliferation Treaty, the Treaty establishes a discriminatory international regime conducive to the existence of a "club of nuclear-weapon States" which, notwithstanding the years that have elapsed since the entry into force of the Treaty on 5 March 1970, have not attained the objective of the total elimination of such weapons.
4. The success of the 2015 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons will depend to a great extent on its ability to address, in a balanced and non-discriminatory manner, compliance with all the commitments under the three pillars of the Non-Proliferation Treaty: disarmament, non-proliferation and the peaceful uses of nuclear energy.
5. Cuba reiterates its firm commitment to general and complete disarmament, including nuclear disarmament, as the highest priority, together with the non-proliferation in all its aspects, vertical and horizontal, of nuclear weapons. Cuba will continue to work with the other States parties to the Treaty to bring about the prohibition and total elimination of nuclear weapons as soon as possible.



II. Specific considerations relating to article III and its national implementation

6. Cuba's interest in nuclear energy relates solely to the peaceful uses of such energy subject to verification by the competent authority, the International Atomic Energy Agency (IAEA).

7. All Cuba's programmes involving nuclear energy have strictly peaceful uses. They have been and are subject to strict control by the competent national authorities and have been monitored on a continuous basis by IAEA. This state of affairs predates Cuba's accession to the Non-Proliferation Treaty, as indicated by the partial agreements on the application of safeguards in connection with the supply of a nuclear power plant by the then Soviet Union (Reg. No. 1394) and the application of safeguards in connection with the supply of a zero power nuclear reactor by the Hungarian People's Republic (Reg. No. 1504), which entered into force on 5 May 1980 and 7 October 1983, respectively.

8. In accordance with its commitments as a State party to the Treaty under article III, paragraph 1, on acceding to the Treaty Cuba immediately began negotiations with IAEA,¹ in order to establish the agreements enabling the Agency to verify the country's nuclear activities.

9. As a result of those negotiations, and pursuant to article III, paragraph 4, on 9 September 2003 the Board of Governors approved the Agreement between the Republic of Cuba and the International Atomic Energy Agency for the Application of Safeguards in Connection with the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean and the Treaty on the Non-Proliferation of Nuclear Weapons (INFCIRC/633), and the Protocol Additional to that Agreement (INFCIRC/633/Add.1), which were signed by Cuba on 18 September 2003 and ratified on 27 May 2004, entering into force on 3 June 2004. These agreements were drafted and have been implemented in accordance with article III, paragraphs 2 and 3.

10. As part of its compliance with these responsibilities, the following activities were carried out from the entry into force for Cuba of the Treaty until the 2010 Review Conference:

(a) The initial report required by the comprehensive safeguards agreement, containing information on nuclear materials and the activities carried out by Cuba from the date of accession, was submitted to IAEA;

(b) Following the final decision to close down the Juraguá nuclear facility, construction of which was halted in 1992, it was agreed to suspend the safeguards and reduce the material balance area established for the facility;

(c) Negotiations were concluded on the structure of the safeguards with two material balance areas at locations outside the facility, and the establishment of key measurement points, even though no nuclear facility exists;

(d) Annual inspections were carried out, including additional access to the main sites of interest to IAEA;

¹ Cuba is a founder and an active member of the Board of Governors, on which it has been represented for 11 periods, including five following its accession to the Treaty.

(e) All the reports and declarations required pursuant to the comprehensive safeguards agreement and the additional protocol were submitted, as were responses to all the clarifications and communications requested from Cuba by the IAEA Department of Safeguards;

(f) A procedure was agreed with IAEA for the issuance of multiple-entry visas to safeguards inspectors approved for Cuba;

(g) Integrated safeguards were implemented, with entry into force for Cuba on 1 January 2009.

11. Over the past five years new activities have been carried out, including:

(a) Inspections incorporating additional access have been conducted, in accordance with the verification regime established by IAEA;

(b) All the reports and declarations pertaining to the comprehensive safeguards agreement and the additional protocol have been submitted;

(c) The multiple-entry visas requested pursuant to the arrangements in effect between Cuba and IAEA have been issued;

(d) A physical inventory was conducted showing that no nuclear materials remain in the country.

12. On the basis of all the activities carried out, the IAEA Safeguards Implementation Report for 2007 placed Cuba for the first time among the 47 countries in respect of which it was able to draw conclusions about safeguards. IAEA verified all the information provided on Cuba's nuclear programme, that all the declared nuclear material was intended for peaceful activities, and that there were no undeclared activities. A similar status was recognized in the IAEA Safeguards Implementation Report for 2013, for the seventh year in succession.

13. In Cuba, although there are no nuclear weapons, legal norms and other instruments exist that regulate the spectrum of activities by the various national organs and institutions engaged in the nuclear sector and ensure strict oversight of the use of nuclear materials. The national legislation in force guarantees the strictly peaceful use of nuclear energy, as well as of related equipment and technology, and is consistent with the other nuclear conventions and treaties to which Cuba is party.

III. Specific considerations relating to article IV

14. In Cuba, the use of nuclear technologies in critical areas of the economy is highly valued and particular importance is given to IAEA technical cooperation.

15. Since the establishment, in 1977, of Cuba's first technical cooperation programme with IAEA, there has been ongoing and productive cooperation. The principal outcomes have focused on improving national capacity in radiotherapy and nuclear medicine; improving the production quality of radiopharmaceuticals and labelled compounds; strengthening the infrastructure of the nuclear regulatory body and the technical base for radiological protection in the country; establishing and strengthening a regional centre for repair and maintenance of the country's nuclear instrumentation; improving the services offered by nuclear research laboratories at the national level; restoring installed irradiation capacity; and further developing other applications for nuclear technologies in agriculture, hydrology and industry.

16. However, the IAEA secretariat faces continued and increasing difficulties in acquiring scientific equipment approved for projects in Cuba, owing to the fact that companies in the United States of America, or those with capital investment from that country, cannot sell such equipment for use in Cuba and face the real possibility of penalties, as a result of the unilateral and unjust economic, commercial and financial embargo imposed by the Government of the United States against Cuba. One consequence of this situation is that execution of our projects is more expensive, since equipment must be purchased from further afield.

17. This is also the situation with regard to courses organized by United States institutions and nuclear equipment sold by United States companies and subsidiaries located in third countries, which are embargoed in the case of Cuban experts and companies, in blatant violation of article IV, paragraph 2, of the Treaty. One notable instance is the additional cost of the investment made by the Cuban State in new positronic technology for the treatment of cancer, the leading cause of death in Cuba over the past two years, purchase of which in the United States would have involved a 30 per cent lower investment.

18. Cuba reaffirms its belief that IAEA technical cooperation should be free of political preconditions, as reflected in its statute. This is of vital importance to developing countries and small island developing States, such as ours, for which the technical cooperation programme is very important, as demonstrated by an implementation rate of over 95 per cent in the past two years and 99.49 per cent in 2014, the highest in the region.

IV. Specific considerations relating to article V

19. Cuba is firmly opposed to nuclear testing of any kind, including subcritical tests and tests using supercomputers and other sophisticated non-explosive methods.

20. It is cause for concern that various countries continue to conduct nuclear-weapon tests by non-explosive means, contrary to the spirit and purpose of the Comprehensive Nuclear-Test-Ban Treaty. In contrast, Cuba, while not a signatory to the Comprehensive Test-Ban Treaty, observes its provisions and has always acted, and will continue to act, in full compliance with the letter and spirit of the instrument.

21. We state our total opposition to the enhancement of existing nuclear weapons and the development of new types of nuclear weapons, as being inconsistent with the obligation of complete nuclear disarmament. We call upon all States to refrain from carrying out nuclear-weapon-test explosions, other nuclear explosions, or any other related non-explosive tests, including subcritical tests, for the purpose of developing nuclear weapons. Such activities are contrary to the object and purpose, and the letter and spirit, of the Comprehensive Test-Ban Treaty, and undermine its intended purpose as a nuclear disarmament measure.

22. Cuba has not yet adopted a definitive position regarding accession to the Comprehensive Test-Ban Treaty. Nevertheless, in the General Assembly we have always voted in favour of resolutions on the Treaty. Any decision in this regard will be taken in the context of the pacifist and multilateral stance of the Cuban Government and people.

23. As a State party to the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Treaty of Tlatelolco), ratified by Cuba on 23 October 2002, Cuba has made the biannual declarations required under the Treaty in a timely and proper manner, to the effect that "no activity prohibited under the provisions of the Treaty of Tlatelolco has taken place in territory under the jurisdiction of the Republic of Cuba".

24. These declarations have been verified by IAEA, in the context of the Agreement between the Republic of Cuba and IAEA for the application of safeguards in connection with the Treaty of Tlatelolco (Reg. No. 1771) and the Additional Protocol to the Agreement between the Republic of Cuba and IAEA for the application of safeguards in connection with the Treaty of Tlatelolco (Reg. No. 1772), signed on 18 September 2003 and in force since 3 June 2004.

V. Specific considerations relating to article VI

25. Weapons of mass destruction, particularly nuclear weapons, represent a threat to humanity, and Cuba, in multilateral forums, has stressed the need for their total elimination, in an irreversible, verifiable and transparent manner.

26. In the Conference on Disarmament, Cuba has actively advocated the urgent initiation of negotiations on a framework convention on the prohibition and elimination of nuclear weapons in a transparent, verifiable and irreversible manner.

27. Likewise, Cuba is in favour of beginning negotiations in the Conference on Disarmament on a non-discriminatory, multilateral and verifiable treaty prohibiting the production of fissionable material for nuclear weapons or other explosive nuclear devices. Such a treaty must contain both non-proliferation and nuclear disarmament measures, given that it would represent a new step towards achieving the objective of the total elimination of nuclear weapons.

28. Cuba has participated actively in the work of the Conference on Disarmament, reaffirming in our interventions in that body the priority we attach to nuclear disarmament and to this disarmament machinery negotiating body, which should be maintained and strengthened through agreement on a broad and balanced programme of work.

29. In the First Committee of the General Assembly, Cuba has systematically cosponsored or supported various resolutions that, directly or indirectly, advocate attainment of the objective of nuclear disarmament.

30. In our interventions in the Disarmament Commission, we have consistently called on the Member States of the United Nations to demonstrate the flexibility and necessary political will to agree on specific recommendations on nuclear disarmament to the General Assembly.

31. On 26 September 2014 the first commemoration took place of the International Day for the Total Elimination of Nuclear Weapons, proclaimed by the General Assembly further to a proposal made by the Non-Aligned Movement on the initiative of Cuba. Cuba took part in activities held on that date in New York, Geneva and Vienna. We stressed the need to adopt concrete measures to bring about nuclear disarmament, we drew attention to the dangers posed by nuclear weapons,

and we emphasized that the only way to ensure that humanity would never suffer the terrible impact of nuclear weapons was their prohibition and total elimination.

32. Cuba considers that the non-proliferation of nuclear weapons is not an end in itself, but one step on the road to nuclear disarmament. Nuclear-weapon States are obliged, pursuant to the provisions of article VI of the Non-Proliferation Treaty and together with the other States parties, to pursue and conclude negotiations on the attainment of nuclear disarmament.

33. The outcome document of the 2015 Review Conference must contain practical commitments that clearly reflect the responsibility and the role of the nuclear Powers in the disarmament process.

34. Cuba is willing to begin negotiations immediately on a legally binding, multilaterally agreed instrument embodying a systematic approach embracing disarmament, verification, assistance and cooperation.

35. Cuba expresses its grave disquiet at the lack of tangible progress in implementing most of the 13 practical steps for the implementation of article VI adopted at the sixth Review Conference, in 2000, and the action plan agreed at the 2010 Review Conference.

36. Among other failings, the nuclear Powers have not lowered to the extent expected the state of alert of their nuclear-weapon systems, or reduced the role of nuclear weapons in their national security policies and doctrines.

37. The five nuclear Powers recognized in the Non-Proliferation Treaty currently possess an aggregate of some 16,350 nuclear weapons in their arsenals, of which approximately 4,150 are operational. Cuba deeply regrets the failure on the part of the nuclear-weapon States to fulfil their unequivocal undertaking to totally eliminate their nuclear arsenals with a view to achieving nuclear disarmament.

38. Although over the past five years there has been a reduction in the total number of nuclear warheads in the world, the rate at which the number is decreasing has slowed in comparison with 10 years earlier.

39. None of the nuclear-weapon States appears willing to renounce nuclear weapons in the foreseeable future. The countries recognized by the Non-Proliferation Treaty as nuclear-weapon States are either deploying new nuclear-weapon launch systems or have announced programmes to do so, so that they seem determined to maintain their nuclear arsenals indefinitely.

40. Since the 2010 Review Conference there have been few developments to suggest that the nuclear-weapon States have a genuine desire to work towards completely dismantling their nuclear arsenals. Rather than abstaining from developing new types of weapons, the long-term upgrade programmes under way in some of these States suggest that nuclear weapons will remain as central elements in their strategic calculations.

41. In view of the threat that it poses to international peace and security, Cuba is extremely concerned about the development of new types of nuclear weapons and the existence of strategic defence doctrines based on the possession and use of such weapons. In addition, the deployment of nuclear weapons by nuclear-weapon States in the territory of non-nuclear-weapon States is a concern, since in practice this means many more "possessor States".

42. The prolonged failure to honour the agreement reached to convene an international conference on the establishment of a zone free of nuclear weapons and other weapons of mass destruction in the Middle East continues to be a major source of frustration at the international level. We recall that the decision to convene the conference was adopted at the 2010 Review Conference, pursuant to the resolution on the Near East adopted by the 1995 Review and Extension Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons. Once again we call for the convening of this conference as soon as possible, during the course of this year.

43. The isolated and selective application of the principle of non-proliferation is insufficient to eliminate nuclear weapons. Only the application of a systematic approach, also including disarmament, verification, assistance and cooperation, will guarantee the total elimination of nuclear weapons.

VI. Specific considerations relating to article VI

44. As part of its long-standing commitment to global nuclear disarmament, in 2002, in addition to acceding to the Treaty on the Non-Proliferation of Nuclear Weapons, Cuba also ratified the Treaty of Tlatelolco.

45. Latin America and the Caribbean, the first densely populated area in the world to become a nuclear-weapon-free zone, has been a political, legal and institutional model for the creation of other nuclear-weapon-free zones in different regions of the world.

46. We reaffirm the historic proclamation of Latin America and the Caribbean as a zone of peace at the Summit of the Community of Latin American and Caribbean States, held in Havana, on 29 January 2014, in which the States of the region made a commitment to continue to promote nuclear disarmament as a priority objective, to contribute through general and complete disarmament, and to banish the use of force or threat of use of force from our region for ever.

47. We urge, once again, the nuclear-weapon States that made interpretative declarations concerning the additional protocols to the Treaty of Tlatelolco to withdraw them without further delay, so as to give full security assurances to the States comprising the nuclear-weapon-free zone in Latin America and the Caribbean.

48. Cuba strongly supports the establishment of nuclear-weapon-free zones in different countries and regions of the world. Nuclear-weapon-free zones reinforce nuclear non-proliferation and contribute to achieving the objective of nuclear disarmament. In this regard, Cuba reiterates its support for the establishment of a zone free of weapons of mass destruction in the Middle East.

49. We regret the failure to implement the agreement on the convening of an international conference for the establishment of a zone free of nuclear weapons and other weapons of mass destruction in the Middle East. We recall that the convening of this conference was an important and integral part of the final outcome of the 2010 Review Conference.

50. We are convinced that the establishment of such a zone, in addition to making an important contribution to achieving the goal of nuclear disarmament, would

constitute a major landmark in the peace process in the Middle East. We call for the convening of the conference without further delay, during the course of this year.

51. Cuba welcomes the third Conference of States Parties and Signatories to Treaties that Establish Nuclear-Weapon-Free Zones and Mongolia, to be held in New York in 2015, as well as the convening of the two previous conferences, in Mexico in 2005 and New York in 2005, since they provided an opportunity to explore and implement concrete methods of cooperation between the various zones and with other interested States. We call for this conference to be strengthened as a forum for shaping consensus on the expansion of nuclear-weapon-free zones, thereby supporting nuclear disarmament.

VII. Other considerations of interest to Cuba with regard to compliance with the Treaty on the Non-Proliferation of Nuclear Weapons

52. Nuclear security is a matter which, owing to its significant implications, is of interest to all States. Its effective management cannot be partial or admit of exceptions. International norms on nuclear security must be adopted in the context of IAEA, as the outcome of inclusive, transparent multilateral intergovernmental negotiations.

53. The conception and implementation of the Integrated Nuclear Security Support Plan, with the deployment of equipment recommended by IAEA, provides a positive example of collaboration between Cuba and the Agency, ensuring ongoing strengthening of the systems of prevention, detection and response to injurious or terrorist acts that might involve nuclear and radioactive materials.

54. The projects being implemented by Cuba with IAEA to strengthen border controls to detect nuclear and radioactive materials and the updating of physical protection measures at facilities with category 1 and category 2 radioactive sources represent some elements of the progress made by Cuba.

55. Regrettably, in recent years summits on nuclear security have been held outside the context of IAEA, with the exclusion of the vast majority of States. The results of these summits cannot in any way be considered a consensual model at the international level. Cuba views as unacceptable any attempt to usurp or disregard the lead role of IAEA in this regard.

56. Non-transparent mechanisms of selective composition that operate outside the United Nations and international treaties do not constitute an adequate response in tackling the phenomenon of international terrorism, including terrorism with the use of weapons of mass destruction, their means of delivery or related materials.

57. The so-called nuclear security summits make no contribution to the genuine efforts being undertaken by the international community to deal with these issues in a transparent and open manner, with the participation of all States and within the framework of such multilateral forums as IAEA that have been established for that purpose.

58. The nuclear-weapon States have a responsibility to guarantee the physical security of their arsenals. However, we are convinced that the only absolute guarantee against the use or threatened use of such weapons and the risk that they

might be used by terrorists is the prohibition and total elimination of nuclear weapons.

59. Cuba roundly condemns all terrorist acts, methods and practices in all their forms and manifestations by whosoever against whomsoever and wheresoever, including State terrorism, and reaffirms that it will not be possible to achieve genuine nuclear security at the global level until nuclear weapons have been completely eliminated from the face of the Earth.

VIII. Conclusions

60. Cuba has demonstrated, through concrete acts, its political will to comply strictly with each and every one of the provisions of the Treaty. The objective of nuclear disarmament must continue to be the international community's main priority in the area of disarmament and arms control.

61. The 2015 Review Conference requires political will, commitment and determined participation on the part of the international community, especially on the part of the nuclear-weapon States, for progress to be made towards the elimination of nuclear weapons in a transparent, irreversible and verifiable manner, and for all States parties to the Treaty to set themselves new goals to achieve that objective.

2015 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons

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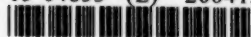
Ninth Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons

Report submitted by Chile

1. This report is issued pursuant to measure 20 agreed upon in the plan of action contained in the final document approved in the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons.
2. Chile has insisted that States possessing nuclear weapons should apply principles of transparency, verifiability and irreversibility to all nuclear disarmament measures. The more information that exists on how States fulfil their binding commitments under the Treaty, particularly those concerning the nuclear disarmament commitment, as stipulated in Article VI, the greater will be the international community's trust in the regime. Clearly, trust-building measures are essential for constructing sustainable and lasting disarmament and non-proliferation regimes. Our country will continue to encourage States that possess nuclear weapons to adopt practical transparency measures in respect of their nuclear weapons and the management of their arsenals.
3. Chile is committed to the Treaty on the Non-Proliferation of Nuclear Weapons, and its three pillars. Unfortunately we have not seen balanced progress in the pillars of this instrument over these last four decades. On the one hand, the scope of the peaceful uses of nuclear energy is expanding substantively and rapidly, supporting the development of nuclear-electric energy, medicine, agriculture, industry, and other human activities. On the other hand, while countries that possess nuclear weapons and have obligations under this treaty have reduced their arsenals, they have not eliminated them; in fact they have actually modernized them, thus keeping the commitment to nuclear disarmament incomplete.
4. Our country has a real commitment to the obligations contained in Article VI of the Treaty, so we share the frustration expressed in previous conferences on the lack of progress in implementing this article, which advocates nuclear disarmament and the adoption of an agreement prohibiting nuclear weapons. We believe that the correct path to disarmament entails the multilateral negotiation, under the auspices of the United Nations and its specialized forums, of a binding instrument outlawing

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nuclear weapons that is verifiable, irreversible, and universal. To that end, we participate in multilateral, regional and bilateral initiatives that have the political aim of finding mechanisms for discussion and analysis to achieve the objective of a nuclear-weapon-free world. Chile also promotes the development, dissemination and education activities undertaken by the international community, and the goals of awareness-raising actions for disarmament and non-proliferation in various forums.

5. Chile is an active member of the Non-Proliferation and Disarmament Initiative (NPDI), which aims to implement the plan of action proposed at the most recent Conference of the Parties. This reaffirms our position on nuclear disarmament. Thus, not only have we promoted multilateral efforts aimed at achieving the objectives proposed by the Non-Proliferation Treaty, but we have also been an active party in initiatives of this type, which provide powerful platforms for establishing new guidelines in the field of international security. Currently, as members of the Initiative, we are working to further develop the provisions of Article X.1, to avoid erroneous interpretations that undermine the integrity of the non-proliferation regime. On this point, Chile has prepared a working paper on Article X.1, which will be included in the global document to be presented by the Initiative at the 2015 Conference of the Parties.

6. Chile, along with Malaysia, New Zealand, Nigeria, Sweden and Switzerland, comprise the De-Alerting Group, which intends to reduce the operational availability of nuclear weapons systems and thus ensure that all such weapons cease to be on alert status. This is a key aspect of the process of building regimes of trust. For this initiative to be successful, it is important that not only States parties to the Treaty adopt these measures, but also that States outside the Treaty suspend the alert status of their nuclear weapons. Clearly, the work of this group should be implemented in the Treaty regime, because a reduction in the operational availability of nuclear weapons systems would demonstrate a commitment to reduce the role of nuclear weapons in defence and security doctrines. It would also be a valuable trust-building measure, and an important step towards nuclear disarmament.

7. Our country reiterates the importance of the entry into force of the Comprehensive Nuclear Test Ban Treaty, so we urge countries that are parties to Annex 2 of the Treaty to formally adopt this instrument, if they have not yet ratified it. The most recent nuclear tests, undertaken by the Democratic People's Republic of Korea, reaffirm the urgent need to complete deployment of the verification mechanism stipulated in this Treaty, thereby consolidating the legal authority and technical efficacy existing in the work of the Comprehensive Nuclear Test Ban Treaty Organization (CTBTO). Without doubt, this Treaty will boost efforts to prevent the proliferation of nuclear weapons, and to limit the upgrading and development of existing nuclear arsenals. On this point, our country has provided surveillance stations on its continental and island territory, in the four technologies that make it possible to detect nuclear tests. The surveillance stations operating in our territory are: three on Easter Island, plus one more to be certified; one on Robinson Crusoe Island; one on Juan Fernández island; one in Limón Verde and one in Punta Arenas. All of this reflects the importance Chile accords to the Comprehensive Nuclear Test Ban Treaty.

8. Chile believes that to develop the disarmament and non-proliferation regime, it is essential to establish a non-discriminatory, multilateral and effectively verifiable

treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices, which takes account of current stocks of fissile material. For that reason, we voted in favour of General Assembly resolution 67/53, and we will support the work of the group of governmental experts on fissile material, which should serve as technical support to the work of the Disarmament Conference. Without doubt, this topic is crucial for the success of future actions arising from the Non-Proliferation Treaty.

9. As a non-nuclear-weapon State, Chile reiterates its firm commitment to the provisions contained in Article II of the Treaty, so we will not manufacture or acquire nuclear weapons or other explosive nuclear devices. Pursuant to the provisions of Articles I and II, our country is party to all regional and universal instruments that reject nuclear weapons and their proliferation, namely the Antarctic Treaty, the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (the Treaty of Tlatelolco), and the Comprehensive Nuclear Test Ban Treaty (CTBT). Moreover, Chile has traditionally and permanently promoted this objective in all forums and regimes relating to disarmament, non-proliferation and weapons control, namely the Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean, the Disarmament Conference, the Disarmament Committee, the First Committee of the General Assembly, and the Comprehensive Nuclear Test Ban Treaty Organization (CTBTO).

10. As a non-nuclear-weapon State, Chile has committed to the safeguards system of the International Atomic Energy Agency (IAEA). Our country is a State party of the IAEA Comprehensive Safeguards Agreement and its additional protocol; and it firmly supports that agency's global verification regime. It does not possess nuclear power reactors, but does have research reactors that are subject to IAEA safeguard measures. Consequently, all dual-use material is subject to safeguard measures by the Agency. The establishment of safeguards, in combination with the additional protocols signed with the IAEA, should be a priority for States that defend their right to use nuclear energy for peaceful purposes. Chile believes that transparency in nuclear energy development plans is the best way to protect that right. Our country urges States that have not yet signed these safeguard agreements to do so as soon as possible. Chile also promotes the universalization of the additional protocol as the international standard on safeguards.

11. In 2012, Chile acquired a commitment, through the IAEA, to strengthen its nuclear and radiation security at the national level, by implementing an Integrated Nuclear Security Support Plan (INSSP), which is currently being developed. In 2013, during an initial phase in the development of the INSSP, a diagnostic mission was undertaken by the International Consultative Service on Nuclear Security (INServe). The mission's purpose was to evaluate the national architecture of nuclear and radiation safety, and to make initial recommendations for its upgrading. We have also developed a nuclear physical security support centre, aimed mainly at developing human resources and providing training on nuclear security, in the various institutions responsible for this.

12. Our country draws on support mechanisms (IAEA and other entities), such as the international missions of physical protection advisory services, for reviewing its systems for the physical protection of civil nuclear materials and facilities. In that regard, Chile makes intensive use of international support, as needed; and it benefits, through the IAEA, from the missions of the International Physical

Protection Advisory Service (IPPAS) of the Office of Nuclear Security (NSNS), and from the United States, from missions of the Global Threat Reduction Initiative of the National Nuclear Security Administration Office (GTRI).

13. In bilateral actions to strengthen security at sources, an administrative agreement was signed between the Canadian Nuclear Safety Commission and the Chilean Nuclear Energy Commission, for the importation and exportation of radioactive sources, all of this based on the principles of the Code of Conduct on the Technological and Physical Safety and Security of Radioactive Sources. This helps countries become better prepared to monitor and control risks associated with sources.

14. It is also adopting the necessary measures at the national, bilateral or multilateral levels, to improve its technical capacities, including the appropriate use of new and innovative technologies to prevent and combat illicit traffic in nuclear materials. Since 2011, Chile has been pursuing an active regional agenda in the MERCOSUR Specialized Working Group on Illicit Traffic in Nuclear and/or Radioactive Material (GTETIMNR). This means generating capacities to prevent, detection, respond, and provide training in situations of radioactive risk, particularly at border control points. Border control points have been defined, by risk categories, to be strengthened in their capacity to monitor and control sources entering or leaving Chile.

15. In that context, it maintains a policy and specific control measures on exports and imports, focusing on nuclear technologies and those defined as of dual nature.

16. Our country attaches special importance to nuclear material accounting for the purpose of nuclear security, and for the last 20 years it has applied a system of accounting for such materials, based on IAEA recommendations. In addition, it adhered to, signed, and finally ratified in the National Congress the International Convention for the Suppression of Acts of Nuclear Terrorism, through Decree to 252 of the Ministry of Foreign Relations, which entered into force on 27 September 2010.

17. Chile is an active participant in the physical protection initiatives of the International Atomic Energy Agency (IAEA), holding meetings both in the country and in the various mechanisms developed worldwide.

18. Our country reaffirms and defends the inalienable right of States parties to the Treaty to use and develop nuclear technology for peaceful purposes, pursuant to Article IV, provided they do not transgress the provisions on non-proliferation specified in any other articles of the Treaty. In relation to the use of nuclear energy for peaceful purposes and other measures, Chile promotes the generation and transfer of applications of nuclear energy, radiation and similar technologies in the fields of health, agriculture, mining, environment and industry in general, to help to improve the conditions in which society develops, so as to enhance national capacities in the broadest possible sense.

19. In that context, Chile is an active participant in the programmes and projects implemented by the IAEA internationally. The benefits it receives and has received as an IAEA member State have made a significant contribution to development, through technical cooperation, support for the development and training of human resources from other countries and from its political and diplomatic representation in the agency. Through its permanent financial contribution, Chile plays its part in

ensuring the continuity of the activities and strengthening the impact of nuclear and radiation applications in member States.

20. Our country participates energetically in activities to enhance preparedness and capacities to respond to emergencies arising from the potential for nuclear or radiation incidents — particularly IAEA activities in relation to the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in Case of a Nuclear Accident or Radiological Emergency, of which Chile is a party.

21. In relation to nuclear materials, Chile has converted its enriched uranium reactors to less than 20%, and does not have highly enriched nuclear fuel. The separation of plutonium is also not one of the activities included in our country's nuclear fuel cycle. In principle, unused nuclear materials are sent for waste management. Lastly, all research and development initiatives in principle do not include the use of highly enriched uranium.

22. We applaud the progress made by participating countries to reduce their availability of highly enriched uranium (HEU), which brings us closer to the common objective proposed in the 2010 Nuclear Security Summit held in Washington, to eliminate all unnecessary nuclear material. Our country decided to modify its research reactors to do away with the use of HEU. For that purpose, we signed an agreement with the United States and the IAEA to set up a mechanism to facilitate the exchange of HEU for low-enriched uranium (LEU).

23. Chile believes the use of nuclear energy for peaceful purposes should take special care to preserve the security of the facilities, material and nuclear technologies. In this regard, it values the Nuclear Security Summit Process, and has participated very actively in its three meetings. Our country is particularly worried about the safe transportation of radioactive wastes and materials. As a coastal state, Chile needs early notification of shipments of this type, and it urges respect for the liability conventions covering this type of transportation in the event of accident. Chile is currently chairing the dialogue between shipping and coastal states in Vienna, which aims to bring positions closer together and promote the defence of persons and the environment.

24. In the Nuclear Security Summits, we have reaffirmed the commitment to strengthen the physical security of nuclear material, in all its stages; reducing and preventing the threat of nuclear terrorism, from criminals and other unauthorized actors with intentions to acquire nuclear materials; promoting the culture of nuclear physical security; strengthening physical security in the transportation of nuclear material and combating the illicit trafficking of nuclear material.

25. We believe it is important to promote the establishment of nuclear-weapon-free zones, to strengthen the disarmament and non-proliferation regime. The establishment of internationally recognized and verifiable nuclear-weapon-free zones in various regions, is a political and legal commitment by a set of States, including Chile, which commit themselves mutually and with the international community, to stay nuclear-weapon-free.

26. Chile is a party to the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean and of its verification agency. The establishment of this first nuclear-weapon-free zone has been decisive for assuring trust and consolidating the region as a space of harmonious coexistence and peace. Our own experience has led us to support the global efforts to set up a nuclear-weapon-free zone in the

Middle East. We are confident that constructive dialogue will make it possible to hold an inclusive, substantive conference leading to the establishment of a zone that is free of weapons of mass destruction and their vectors, on an effective and verifiable basis.

27. We are firmly committed to the so-called humanitarian approach to nuclear disarmament, which seeks to inculcate, in world opinion, not only the horrendous humanitarian consequences of the use of atomic weapons, but also the radical incompatibility that exists between their possession and use and the general standards of international humanitarian law and the international human rights system, since it is contrary to the usages established among civilized peoples, by the laws of humanity, and the dictates of public conscience. Moreover, following three international conferences on the subject, an advisory opinion issued by the International Court of Justice, numerous declarations from the International Committee of the Red Cross, and a number of studies from various academic specialties, the use of nuclear weapons is implacably contrary to the basic principles of human rights law of humanity, military need, Geneva law, humanitarian priority, distinction, limitation of hostile action, and in the event of a possible attack on a State without nuclear weapons, the principle of proportionality.

28. As Chile is fully committed to the process of developing this humanitarian approach to nuclear weapons, we have participated actively in the three international conferences that have been held by the Humanitarian Initiative on the Impact of Nuclear Weapons. These conferences, in Oslo, Nayarit and Vienna, have shown that the world is not prepared to respond adequately to a nuclear explosion. A nuclear attack or accident would have immediate and long-term consequences. It hardly seems necessary to mention the immediate consequences of a nuclear detonation on a city — the world has already witnessed this; but it is necessary to draw attention to the consequences in terms of economic and social development, climate, social systems, and all of human activity generally. We have no doubt that we are not prepared for that, nor will we be.

2015 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons

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Nuclear Non-Proliferation Treaty

National report submitted by New Zealand

1. The present report is submitted pursuant to action 20 of the action plan in the Final Document of the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons. The plan stipulates that States parties submit regular reports on their implementation of the action plan, and of article VI, paragraph 4 (c), of the 1995 decision entitled "Principles and objectives for nuclear non-proliferation and disarmament", as well as the practical steps agreed in the Final Document of the 2000 Review Conference, recalling also the advisory opinion of the International Court of Justice of 8 July 1996 (action 20). At the 2010 Review Conference, States parties recognized that nuclear disarmament and achieving the peace and security of a world without nuclear weapons would require openness and cooperation. States parties affirmed the importance of enhanced confidence through increased transparency and effective verification.

2. In the Final Document of the 2010 Review Conference, a number of actions on transparency were agreed. Under action 2, all States parties committed to apply the principles of irreversibility, verifiability and transparency regarding the implementation of their Treaty obligations. Under action 5, the nuclear-weapon States committed to accelerate concrete progress on steps leading to nuclear disarmament and were called upon to promptly engage with a view, inter alia, to "further enhance transparency and increase mutual confidence" and to report back on undertakings set out in that action step. Under action 19, all States agreed on the importance of supporting cooperation among Governments, the United Nations and other international, regional and civil society organizations with the aim of building confidence, transparency and efficient verification capabilities relating to nuclear disarmament. As a confidence-building measure under action 21, all the nuclear-weapon States were encouraged to agree on a standard reporting form and appropriate reporting intervals for the purpose of voluntarily providing standard information without prejudice to national security.

3. New Zealand is a strong supporter of the Treaty on the Non-Proliferation of Nuclear Weapons and its three pillars. We are dedicated to achieving a world free of nuclear weapons, and continue to encourage national, regional and global efforts to realize this goal.

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4. New Zealand takes very seriously the obligations under article VI and the commitments agreed at subsequent Review Conferences, particularly the “Principles and objectives for nuclear non-proliferation and disarmament” adopted at the 1995 Review and Extension Conference of the Parties to the Treaty, the 13 practical steps agreed at the 2000 Review Conference and the nuclear disarmament action plan agreed at the 2010 Review Conference. These represent an integral part of the Treaty regime. The 2010 action plan provides a blueprint for action in the short term. New Zealand continues to take every opportunity to urge all States parties to meet their obligations fully.

5. New Zealand considers that transparency is a principle to which all States should adhere, nuclear-weapon States and non-nuclear-weapon States alike, because it helps reinforce compliance with Treaty obligations. The more that is known about how States implement their Treaty commitments, the greater the level of international trust in the regime. In this spirit, New Zealand has consistently submitted transparency reports since the 2000 Review Conference and, in the light of action 20, will continue to do so.

6. New Zealand is an active member of the New Agenda Coalition¹ to promote nuclear disarmament. The Coalition sponsors an annual General Assembly resolution titled “Towards a nuclear-weapon-free world: accelerating the implementation of nuclear disarmament commitments”. In its resolution 69/37, the Assembly highlighted the central role of the Treaty and its binding nature at all times and in all circumstances. It also sought to place emphasis on the relevant action points in the 2010 action plan and called upon States to abide fully by their commitments. Looking forward, resolution 69/37 called on the 2015 Review Conference to give due prominence to the humanitarian imperatives in its decisions and follow-on actions, to agree on an additional set of measures to build on commitments made and actions agreed and urged States parties to the Treaty to explore during the Review Conference options for the elaboration of the effective measures envisaged in and required by article VI of the Treaty.

7. In addition to the seven papers² submitted by the New Agenda Coalition to the three Preparatory Committee meetings in the current review cycle, New Zealand is pleased to be associated with the two working papers submitted by the Coalition to the 2015 Review Conference itself: a working paper seeking progress on the implementation of Article VI (NPT/CONF.2015/WP.9) and a working paper proposing a range of recommendations on nuclear disarmament issues (NPT/CONF.2015/WP.8). As a member of the New Agenda Coalition and as its current coordinator, New Zealand looks forward to building further on these at the 2015 Review Conference.

8. New Zealand is pleased to work with Chile, Malaysia, Nigeria, Sweden and Switzerland (the members of the De-Alerting Group) in promoting action to lower the operational readiness of nuclear weapons systems. In adopting the Group’s most recent resolution in 2014 (resolution 69/42), the General Assembly called for further

¹ Brazil, Egypt, Ireland, Mexico, New Zealand and South Africa.

² NPT/CONF.2015/PC.III/WP.18 (on effective measures); NPT/CONF.2015/PC.III/WP.19 (on the humanitarian impact of nuclear weapons); NPT/CONF.2015/PC.III/WP.25, NPT/CONF.2015/PC.II/WP.27 and NPT/CONF.2015/PC.I/WP.29 (on nuclear disarmament); NPT/CONF.2015/PC.II/WP.26 (on transparency); and NPT/CONF.2015/PC.I/WP.30 (on verification).

practical steps to be taken to decrease the operational readiness of nuclear weapon systems with a view to ensuring that all nuclear weapons are removed from high alert status, and looked forward to this issue being addressed further at the 2015 Review Conference. In addition to the paper presented at the 2014 session of the Preparatory Committee (NPT/CONF.2015/PC.III/WP.24), the De-Alerting Group will present a paper highlighting the importance of de-alerting and proposing recommendations on this issue for consideration by the 2015 Review Conference. New Zealand remains committed to progress in this area as part of a holistic approach to nuclear disarmament.

9. The 2010 Review Conference expressed its deep concern at the catastrophic humanitarian consequences of nuclear weapons. New Zealand has been a strong supporter of efforts undertaken since then to increase awareness of this central element of the nuclear disarmament debate. New Zealand has attended and actively participated in the three international conferences held in Austria, Mexico and Norway so as to better understand the nature and gravity of the humanitarian consequences of any use of nuclear weapons, intentional or accidental. New Zealand has supported statements on the humanitarian consequences of nuclear weapons at all three sessions of the 2015 Preparatory Committee and also coordinated and delivered a joint statement on behalf of 155 States at a meeting of the First Committee during the sixty-ninth session of the General Assembly in 2014. The statement concluded that the only way to guarantee that nuclear weapons are never used again is through their total elimination, including through the full implementation of the Treaty.

10. New Zealand remains a strong proponent of the entry into force of the Comprehensive Nuclear-Test-Ban Treaty. New Zealand associated itself with the Joint Ministerial Statement on the Comprehensive Nuclear-Test-Ban Treaty, adopted in New York on 26 September 2014. New Zealand was pleased that the 2010 Review Conference reaffirmed the essential role of the Comprehensive Nuclear-Test-Ban Treaty within the nuclear disarmament and non-proliferation regime and the vital importance of the entry into force of that Treaty. The Comprehensive Nuclear-Test-Ban Treaty makes an important contribution towards preventing the proliferation of nuclear weapons, constraining the qualitative enhancement of existing nuclear weapons and ending the development of advanced new types of such weapons. New Zealand is pleased to be a core sponsor, with Australia and Mexico, of a recurring General Assembly resolution on the Comprehensive Nuclear-Test-Ban Treaty, in which the Assembly has recognized that Treaty as a fundamental instrument in the field of nuclear disarmament and non-proliferation.³

11. New Zealand strongly supports the objective and purpose of the Comprehensive Nuclear-Test-Ban Treaty and, pending its entry into force, urges all States to refrain from testing nuclear devices. New Zealand publicly condemned the nuclear tests conducted by the Democratic People's Republic of Korea on 9 October 2006, 25 May 2009 and 12 February 2013, which were detected by the Treaty's verification system. They violated relevant Security Council resolutions.

12. New Zealand is deeply disappointed that sustained attempts to determine a programme of work in the Conference on Disarmament have not been successful. New Zealand, which will take up its one-month presidency of the Conference on

³ See, for example, resolution 69/81.

Disarmament in August 2015 and is playing a constructive role as part of the P6 (i.e., as one of the six presidents of the annual session), supports all efforts to overcome the current impasse so that substantive work in the Conference can commence without further delay. It is of concern to New Zealand that the Conference is failing to fulfil its role in the progression of nuclear disarmament and non-proliferation. New Zealand supports the early negotiation of a non-discriminatory, multilateral and internationally and effectively verifiable treaty on fissile material for nuclear weapons or other nuclear explosive devices, reflecting both nuclear disarmament and nuclear non-proliferation objectives.

13. New Zealand is a strong advocate of the role of nuclear-weapon-free zones in contributing to nuclear disarmament and non-proliferation. As a full party to the South Pacific Nuclear Free Zone Treaty of 1985 (the Treaty of Rarotonga), New Zealand works to promote more engagement between States that belong to nuclear-weapon-free zones. We will participate actively in the Third Conference of States Parties and Signatories of Treaties that Establish Nuclear-Weapon-Free Zones and Mongolia on 24 April 2015 and will serve in the bureau of that Conference.

14. In 2014, Brazil and New Zealand introduced a draft resolution entitled "Nuclear-weapon-free southern hemisphere and adjacent areas", which was adopted by the General Assembly (resolution 69/35). This resolution recognized the contribution of nuclear-weapon-free zones to the achievement of a nuclear-weapon-free world and welcomed the fact that all nuclear-weapon-free zones in the southern hemisphere are now in force. It also called upon the nuclear-weapon States to withdraw any reservations or interpretive declarations contrary to the object and purpose of treaties establishing nuclear-weapon-free zones.

15. New Zealand welcomed the reaffirmation at the 2010 Review Conference of the resolution on the Middle East adopted at the 1995 Review Conference and agreement to convene a conference in 2012 on the establishment of a zone free of weapons of mass destruction in the Middle East. It is regrettable that the conference has still not been held, and we continue to call on the convenors, the facilitator and the States of the region to exert every effort to convene the conference as soon as possible.

16. New Zealand is an active member of the Vienna Group of Ten,⁴ which produces working papers for the Review Conference on the peaceful uses of nuclear energy, nuclear safety, security and safeguards, export controls and the Comprehensive Nuclear-Test-Ban Treaty. We are pleased to support the composite paper and recommendations put forward by the Vienna Group of Ten for consideration by the Review Conference in 2015.

17. New Zealand fully complies with its article II commitments. The country's obligations under the Treaty on the Non-Proliferation of Nuclear Weapons are legislated in the New Zealand Nuclear Free Zone, Disarmament and Arms Control Act of 1987. The country's concerns about compliance by other non-nuclear-weapon States parties have been expressed in various forums, including the International Atomic Energy Agency (IAEA).

18. The country's comprehensive safeguards agreement with IAEA came into force on 29 February 1972, with our additional protocol concluded on 24 September

⁴ Australia, Austria, Canada, Denmark, Finland, Hungary, Ireland, the Netherlands, New Zealand, Norway and Sweden.

1998. In February 2014 we were pleased to sign the modified small quantities protocol to our safeguards agreement. With no nuclear weapons, no nuclear energy generation, no nuclear reactors and no production of uranium or other relevant material, New Zealand conducts only very minor activities subject to safeguards. IAEA continues to assess New Zealand as being in full compliance with all its safeguards commitments.

19. New Zealand strongly supports a system of strengthened IAEA safeguards as an essential component of the global non-proliferation regime. Through safeguards, IAEA verifies assurances that States are meeting their obligations under the Treaty on the Non-Proliferation of Nuclear Weapons and provides the mechanism by which States demonstrate their compliance. Universal application of the integrated safeguards system, including the additional protocol, would promote collective security, and New Zealand calls upon all States that have not yet done so to conclude such agreements at the earliest possible date. New Zealand continues to seek opportunities to strengthen the application of nuclear safeguards and, to this end, was pleased to join the Asia-Pacific Safeguards Network in April 2014. New Zealand also supports efforts by IAEA to develop the State-level concept as a means of increasing the efficiency and effectiveness of the safeguards system.

20. New Zealand applies export controls to materials and dual-use goods that could be used in a nuclear weapons programme. The Government maintains cooperation and information exchanges among relevant Government agencies involved in export controls and continues both domestic and international outreach in this area. The current review of the Customs Act and proposed introduction of brokering controls will further strengthen the existing regime. We actively work to strengthen and coordinate international measures with other members of the Nuclear Suppliers Group and with the Zangger Committee, which New Zealand joined in November 2013.

21. New Zealand reaffirms the inalienable right of States parties to peaceful nuclear technology, in conformity with articles I, II and III of the Treaty, and is pleased to continue supporting the IAEA Peaceful Uses Initiative. It remains our view that safeguards, safety, security and waste management should be integral parts of the development of peaceful uses of nuclear energy. New Zealand remains actively engaged in international efforts to strengthen nuclear safety and security, including at the Nuclear Security Summit and through our funding of the IAEA Nuclear Security Fund. New Zealand supports a strengthened role for IAEA in nuclear security and looks forward to participating in the Nuclear Security Conference in December 2016. New Zealand is also scheduled to host a Proliferation Security Initiative exercise in November 2015 aimed at strengthening national, regional and international efforts to counter the proliferation of weapons of mass destruction and related materials.

22. In IAEA and other relevant forums, New Zealand continues to actively promote the safe transport of radioactive material. New Zealand is keen to ensure that the highest possible safety standards are adopted and applied by those transporting radioactive material, that coastal and other interested States receive notification in advance of shipments and that adequate liability arrangements are in place. In September 2013, New Zealand was pleased to join a number of coastal and shipping states at IAEA in agreeing on voluntary best practice guidelines on communication to apply to certain shipments of radioactive material. New Zealand

also looks forward to participating in a table-top exercise to test the guidelines in June 2015.

23. New Zealand remains committed to efforts to promote disarmament and non-proliferation education. Parliamentarians for Nuclear Non-Proliferation and Disarmament (www.pnnd.org) ensures New Zealand parliamentarians are kept abreast of international nuclear disarmament issues and initiatives through updates, events at the Inter-Parliamentary Union Assemblies and meetings in parliament buildings. The Ministry of Foreign Affairs gives regular briefings to non-governmental organizations and includes participants from non-governmental organizations in Review Conference delegations.

24. The Government has two funds to support a wide range of disarmament and peace education activities. The Disarmament Education UN Implementation Fund helps fund citizen groups to implement the recommendations from the United Nations Study on Disarmament and Non-Proliferation Education of 2002. The Peace and Disarmament Education Trust regularly funds M.A. and Ph.D. scholarships for research on disarmament issues. Other projects include the creation of Peace Cities; exhibitions; the training of interns; peace libraries; the production of educational material for schools, journalists and university students; and visits by leading disarmament experts such as the United Nations High Representative for Disarmament Affairs and the former United Nations Assistant Secretary-General.

25. In addition, a range of civil-society initiatives promote education on nuclear disarmament and non-proliferation issues. Events to commemorate the nuclear bombings of Hiroshima and Nagasaki are held in all schools and some cities during Peace Week in August. The Peace Foundation offers "Responding to Armed Conflict" presentations to schools covering topics such as the Treaty, and disarmament and development. New Zealand Nuclear Free Zone Day on 8 June highlights the country's role in working towards a nuclear free world. The book *Peace, Power and Politics* offers a comprehensive history of how New Zealand became nuclear free. The Disarmament and Security Centre's website (www.disarmsecure.org) hosts educational material for teachers and students about nuclear disarmament.

26. "UN Youth NZ" fosters global citizenship with a range of opportunities, including study tours to the International Court of Justice and international Model United Nations conferences. It organizes 17 Model United Nations Assemblies around New Zealand and a four-day national United Nations Model Assembly that often attracts some 250 delegates. Young people are encouraged to critically evaluate issues such as the use of nuclear technology and weaponry. The United Nations Association also organizes public meetings promoting nuclear disarmament.

27. Peace Movement Aotearoa is a national networking peace organization. It hosts a comprehensive website (www.converge.org.nz/pma/) listing United Nations and other documents on conventional and nuclear disarmament. It promotes activities to mark Nuclear Free and Independent Pacific Day, the United Nations International Day for the Total Elimination of Nuclear Weapons, the United Nations International Day of Peace, the Global Day of Action on Military Spending, Armistice Day and the World War One Centenary and the Campaign to Stop Killer Robots.

28. UNFOLD ZERO (www.unfoldzero.org) uses conference calls, e-mails and social media to educate non-governmental organizations in New Zealand on United Nations disarmament initiatives. Abolition 2000 Global Network to Eliminate Nuclear Weapons informs non-governmental organizations of nuclear abolition initiatives around the world via Facebook, its website (www.abolition2000.org) and newsletters.

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Establishment of a Middle East zone free of nuclear weapons

Report submitted by the Islamic Republic of Iran

1. The present report is submitted pursuant to section IV, paragraph 9, of the conclusions and recommendations for follow-on actions adopted at the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons. By virtue of that section, the Conference reaffirmed that "all States parties to the Treaty, particularly the nuclear-weapon States and the States in the region, should continue to report on steps taken to implement the 1995 Resolution, through the United Nations Secretariat, to the President of the 2015 Review Conference, as well as to the Chairperson of the Preparatory Committee meetings to be held in advance of that Conference". Accordingly, this report contains the list of measures taken by the Islamic Republic of Iran during the period between the 2010 and 2015 Review Conferences with regard to the implementation of the 1995 Resolution on the Middle East, including the action plan adopted at the 2010 Review Conference on the implementation of the 1995 Resolution.

2. As the initiator of the idea of the establishment of a nuclear-weapon-free zone in the Middle East, presented in 1974, a party to the Treaty on the Non-Proliferation of Nuclear Weapons, the Biological Weapons Convention, the Chemical Weapons Convention and the 1925 Geneva Protocol, and a signatory to the Comprehensive Nuclear-Test-Ban Treaty, and having a comprehensive safeguards agreement with the International Atomic Energy Agency (IAEA), based on which all of its nuclear facilities are under the Agency's safeguards, the Islamic Republic of Iran has a high record of accession, among the Middle Eastern countries, to the international instruments banning the weapons of mass destruction. This, indeed, is a clear manifestation of the firm commitment of the Islamic Republic of Iran to the cause of nuclear disarmament and non-proliferation, as well as the realization of a nuclear-weapon-free zone in the Middle East. It also testifies to the strong commitment of the Islamic Republic of Iran to achieving the objective of the prohibition of the development, production, stockpiling, use or threat of use of weapons of mass destruction.

3. Consistent with this policy, the Islamic Republic of Iran fully supports and underlines the importance of the implementation of the Resolution on the Middle



East adopted by the 1995 Review and Extension Conference of the Parties to the Treaty, which is an essential element of the outcome of the 1995 Conference and of the basis on which the Treaty was indefinitely extended without a vote in 1995. While expressing deep concern over the long delay in the implementation of this Resolution, the importance of which and the full realization of whose goals and objectives are reaffirmed by the 2000 and 2010 Review Conferences, the Islamic Republic of Iran strongly believes that, as reaffirmed by these Review Conferences, the Resolution remains valid until its goals and objectives are achieved.

4. The adoption, in 2010, of an action plan on the implementation of the 1995 Resolution on the Middle East, which urged the United Nations Secretary-General and the co-sponsors of the 1995 Resolution, in consultation with the States of the region, to convene a conference in 2012, to be attended by all States of the Middle East, on the establishment of a Middle East zone free of nuclear weapons and all other weapons of mass destruction, with the full support and engagement of the nuclear-weapon States, and taking the 1995 Resolution as its terms of reference, was a positive sign towards the implementation of the 1995 Resolution, which enjoyed the support of the Islamic Republic of Iran and all other States parties to the Treaty in the Middle East.

5. Since the adoption of the aforesaid action plan, the Islamic Republic of Iran has fully supported its prompt and full implementation. The steps taken by the Islamic Republic of Iran during the period between the 2010 and 2015 Review Conferences with regard to the implementation of the 1995 Resolution on the Middle East, including the action plan adopted at the 2010 Review Conference on the implementation of the 1995 Resolution on the Middle East, are, among others, as follows:

I. The Islamic Republic of Iran continued to vote in favour of the United Nations General Assembly resolution on the establishment of a nuclear-weapon-free zone in the region of the Middle East. In the resolution, which, since 1982, has been adopted annually by the Assembly without a vote, the Assembly, *inter alia*, "urges all parties directly concerned seriously to consider taking the practical and urgent steps required for the implementation of the proposal to establish a nuclear-weapon-free zone in the region of the Middle East in accordance with the relevant resolutions of the General Assembly, and, as a means of promoting this objective, invites the countries concerned to adhere to the Treaty on the Non-Proliferation of Nuclear Weapons", "calls upon all countries of the region that have not yet done so, pending the establishment of the zone, to agree to place all their nuclear activities under International Atomic Energy Agency safeguards", and "invites those countries, pending the establishment of the zone, not to develop, produce, test or otherwise acquire nuclear weapons or permit the stationing on their territories, or territories under their control, of nuclear weapons or nuclear explosive devices".

II. Moreover, in line with its principled position on the establishment of a nuclear-weapon-free zone in the Middle East and the need for achieving the universality of the Treaty on the Non-Proliferation of Nuclear Weapons, the Islamic Republic of Iran continued to vote in favour of the United Nations General Assembly resolution on the risk of nuclear proliferation in the Middle East, in which the Assembly, by "recalling that Israel remains the only State in

the Middle East that has not yet become a party to the Treaty" and expressing concern "about the threats posed by the proliferation of nuclear weapons to the security and stability of the Middle East region", "reiterates that the resolution on the Middle East adopted by the 1995 Review and Extension Conference of the Parties to the Treaty remains valid until its goals and objectives are achieved", "calls for immediate steps towards the full implementation of that resolution", "reaffirms the importance of Israel's accession to the Treaty on the Non Proliferation of Nuclear Weapons and placement of all its nuclear facilities under comprehensive International Atomic Energy Agency safeguards, in realizing the goal of universal adherence to the Treaty in the Middle East" and calls upon Israel "to accede to the Treaty without further delay, not to develop, produce, test or otherwise acquire nuclear weapons, to renounce possession of nuclear weapons and to place all its unsafeguarded nuclear facilities under full-scope Agency safeguards as an important confidence-building measure among all States of the region and as a step towards enhancing peace and security".

III. The Islamic Republic of Iran also continued to vote in favour of the IAEA General Conference resolution on the application of IAEA safeguards in the Middle East, by virtue of which the General Conference, by expressing concern over the "grave consequences, endangering peace and security, of the presence in the Middle East region of nuclear activities not wholly devoted to peaceful purposes", "calls upon all States in the region to accede to the Treaty on the Non-Proliferation of Nuclear Weapons", "affirms the urgent need for all States in the Middle East to forthwith accept the application of full-scope Agency safeguards to all their nuclear activities" as a step in enhancing peace and security in the context of the establishment of a nuclear-weapon-free zone in the Middle East, and "calls upon all States of the region, pending the establishment of the zone, not to pursue actions that would undermine the goal of establishing the zone, including developing, producing, testing or otherwise acquiring nuclear weapons".

IV. The Islamic Republic of Iran also continued its full support for the Organization of Islamic Cooperation resolution on the establishment of a nuclear-weapon-free zone in the Middle East. Through the resolution, the Organization, inter alia, by expressing deep concern "that the possession of nuclear weapons by Israel poses grave dangers to the security and stability of the Middle East region", "constitutes a threat to non-nuclear-weapon States and poses grave danger to international peace and security" and recalling "that Israel is the only country in the Middle East that is yet to accede to the Treaty on the Non-Proliferation of Nuclear Weapons", "calls on Israel to accede to the Treaty, without further delay and unconditionally, and to place all its nuclear facilities under the comprehensive safeguards regime of IAEA" and "reaffirms the importance of establishing a nuclear-weapon-free zone in the Middle East as soon as possible to preserve peace and security in the region".

V. The Islamic Republic of Iran continued to vote in favour of the Organization of Islamic Cooperation resolution on condemnation of the Zionist regime for possession of nuclear capability to develop nuclear arsenals. By this resolution, the Organization of Islamic Cooperation expresses grave concern over "the statement made by the Prime Minister of Israel, in which he acknowledged publicly the possession of nuclear weapons by its

regime” and “condemns in the strongest terms the possession of nuclear capability by the Israeli regime to develop nuclear arsenals”. It further “expresses its grave concern over the clandestine nuclear activities and acquisition of nuclear weapon capability by Israel, which poses a serious and continuing threat to the international peace and security as well as the security of neighbouring and other States, and condemns it for continuing to develop and stockpile nuclear arsenals”. Moreover, the Organization “urges the international community to exert pressure on Israel to renounce possession of its nuclear weapons, to accede to the Treaty on the Non-Proliferation of Nuclear Weapons without further delay and any conditions, to place promptly all its unsafeguarded nuclear facilities under IAEA full-scope safeguards”. The Organization also, once again, “reaffirms the need for the speedy establishment of a nuclear-weapon-free zone in the Middle East”.

VI. In the implementation of the United Nations General Assembly resolutions on the establishment of a nuclear-weapon-free zone in the region of the Middle East, in which the Assembly “invites all countries of the region, pending the establishment of a nuclear-weapon-free zone in the region of the Middle East, to declare their support for establishing such a zone, consistent with paragraph 63 (d) of the Final Document of the Tenth Special Session of the General Assembly, and to deposit those declarations with the Security Council”, on 28 January 2014, the Islamic Republic of Iran, in a letter to the United Nations Secretary-General, reiterated its long-standing support for the establishment of a nuclear-weapon-free zone in the region of the Middle East.

VII. The Islamic Republic of Iran also actively participated in the meetings of the Preparatory Committee for the 2015 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons in 2012, 2013 and 2014 and submitted three reports on the steps that it had taken with regard to the implementation of the 1995 Resolution on the Middle East, including the action plan adopted at the 2010 Review Conference on the implementation of the 1995 Resolution on the Middle East.

VIII. As a member of the Non-Aligned Movement, the Islamic Republic of Iran continued to support the common position of the Movement on the establishment of a Middle East zone free of nuclear weapons, reflected in the Final Documents of the Summits and Ministerial Conferences of the Movement. The latest of such documents are the Final Documents of the seventeenth Ministerial Conference of the Non-Aligned Movement, held in Algiers from 26 to 29 May 2014, through which the Ministers, inter alia, “reaffirmed the need for the speedy establishment of a nuclear-weapon-free zone in the Middle East”, “called upon all parties concerned to take urgent and practical steps towards the fulfilment of the proposal initiated by Iran[in 1974 for the establishment of such a zone” and “pending its establishment, ... demanded that Israel, the only country in the region that has not joined the Treaty on the Non-Proliferation of Nuclear Weapons nor declared its intention to do so, renounce possession of nuclear weapons, accede to the Treaty without precondition and further delay, place promptly all its nuclear facilities under IAEA full-scope safeguards according to Security Council resolution 487 (1981) and conduct its nuclear-related activities in conformity with the non-proliferation regime”.

IX. Additionally, during the period, the Islamic Republic of Iran continued to fully support all other international and regional resolutions and statements in support of the establishment of a nuclear-weapon-free zone in the Middle East.

X. In another measure in support of the establishment of a nuclear-weapon-free zone in the Middle East, the Islamic Republic of Iran held two international conferences on nuclear disarmament and non-proliferation in Tehran on 17 and 18 April 2010 and on 12 and 13 June 2011, which, inter alia, examined the ways and means of realizing a nuclear-weapon-free zone in the Middle East.

XI. The Islamic Republic of Iran, including through several rounds of consultations with the Facilitator, participated in the preparation process for the conference on the establishment of a nuclear-weapon-free zone in the Middle East, as decided by the 2010 Review Conference of the Parties to the Treaty, and in 2012 officially declared its readiness to participate therein, which, regrettably, was not convened owing only to the refusal of the Israeli regime to participate in that conference.

XII. The Islamic Republic of Iran continued its bilateral and multilateral dialogue and consultations with States parties to the Treaty, particularly in the Middle East, to exchange views and coordinate positions on the implementation of the 1995 Resolution on the Middle East, including the 2010 action plan on the implementation of the 1995 Resolution.

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Report of the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization prepared for the 2015 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons

Introduction

1. The Treaty on the Non-Proliferation of Nuclear Weapons recalls in its preamble the determination of the parties to the 1963 Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water to ban all explosive testing of nuclear weapons for all time. However, it was not until 1993 that the General Assembly passed a consensus resolution endorsing a mandate for the negotiations of a comprehensive test-ban treaty at the Conference on Disarmament. Accordingly, the Ad Hoc Committee on a Nuclear Test Ban initiated official negotiations in January 1994. The Comprehensive Nuclear-Test-Ban Treaty was adopted by the General Assembly on 10 September 1996, and was formally opened for signature on 24 September 1996.

2. The preamble of the Comprehensive Nuclear-Test-Ban Treaty states that its objective is "to contribute effectively to the prevention of the proliferation of nuclear weapons in all its aspects" and "to the process of nuclear disarmament". The basic obligations of the Comprehensive Nuclear-Test-Ban Treaty prohibit States parties from carrying out any nuclear weapon test explosion or any other nuclear explosion, whether for a military or any other purpose. The other articles of the Treaty, inter alia, provide for the establishment of the Treaty's implementing organization, elaborate on the global verification regime to monitor compliance with Treaty provisions, and outline measures to redress a situation which contravenes the provisions of the Comprehensive Nuclear-Test-Ban Treaty.

3. In order to enter into force, the Comprehensive Nuclear-Test-Ban Treaty must be ratified by all 44 States listed in Annex 2 to the Treaty. These States formally participated in the 1996 session of the Conference on Disarmament, and possessed nuclear power or research reactors as defined by the International Atomic Energy Agency at the time of negotiations. In advance of the entry into force of the Treaty, a Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization was established by the States signatories on 19 November 1996.



Comprehensive Nuclear-Test-Ban Treaty and Treaty on the Non-Proliferation of Nuclear Weapons review process

4. The principles and objectives for nuclear non-proliferation and disarmament adopted at the 1995 Treaty on the Non-Proliferation of Nuclear Weapons Review and Extension Conference as part of the package of decisions and resolutions to secure the indefinite extension of the Treaty included the completion by the Conference on Disarmament of the negotiations on a universal and internationally and effectively verifiable Comprehensive Nuclear-Test-Ban Treaty no later than 1996.

5. The outcome of the 2000 Review Conference further underscored the inextricable linkage between the Comprehensive Nuclear-Test-Ban Treaty and the international non-proliferation regime. The Final Document adopted by States Parties to the Treaty on the Non-Proliferation of Nuclear Weapons contained 13 practical steps for the systematic and progressive efforts to implement article VI of the Treaty. Steps 1 and 2 noted the “importance and urgency of signatures and ratifications, without delay and without conditions” in order to achieve the entry into force of the Comprehensive Nuclear-Test-Ban Treaty and a moratorium on nuclear tests pending entry into force of the Treaty.

6. The 2010 Review Conference reaffirmed the vital importance of the entry into force of the Comprehensive Nuclear-Test-Ban Treaty as a core element of the international nuclear disarmament and non-proliferation regime. The outcome document contained 64 actions, in an action plan, which would, in conjunction with the 13 practical steps agreed to in 2000, promote the full, effective and urgent implementation of article VI of the Treaty on the Non-Proliferation of Nuclear Weapons. Five of these actions dealt explicitly with the Comprehensive Nuclear-Test-Ban Treaty. Actions 10 and 11 reiterated the need for nuclear-weapon States to expedite their ratification of the Treaty, and to continue existing nuclear testing moratoria. Actions 12 and 13 recognized the contributions made by the article XIV conferences¹ and called on all ratifying States to promote the entry into force and implementation of the Treaty at all levels. Action 14 encouraged the Preparatory Commission to continue the development and operationalization of the Treaty’s verification regime.

7. The urgency of the entry into force of the Comprehensive Nuclear-Test-Ban Treaty has been widely recognized by the international community. This support is evidenced through the widespread high-level attendance at the 2011 and 2013 Conferences on Facilitating the Entry into Force of the Comprehensive Nuclear-Test-Ban Treaty (see paras. 23-25 below), as well as the overwhelming support for resolution 69/81 on the Comprehensive Nuclear-Test-Ban Treaty adopted at the sixty-ninth session of the General Assembly with 179 States voting in favour, 1 against and 3 abstentions.

Preparatory Commission

8. The purpose of the Preparatory Commission established shortly after the Treaty’s opening for signature is to carry out the necessary preparations for the

¹ Article XIV Conferences have been held in Vienna (1999, 2003 and 2007) and in New York (2001, 2005, 2009, 2011 and 2013).

effective implementation of the Comprehensive Nuclear-Test-Ban Treaty and prepare for the first session of the Conference of the States Parties to the Treaty. The Commission conducts two main activities: first, to undertake all necessary preparations to ensure that the verification regime foreseen by the Treaty is capable of fulfilling its operational mission at entry into force of the Treaty; secondly, to facilitate ratification processes by States signatories by providing legal and technical information and advice on the Treaty.

9. The Commission consists of two main organs. The first is a plenary body composed of all States signatories (also known as the Preparatory Commission), which is assisted by three groups: a working group on administrative and financial issues (Working Group A), another on verification-related issues (Working Group B), and an advisory group. The second is the Provisional Technical Secretariat, which assists the plenary body in carrying out its activities. The Provisional Technical Secretariat has three technical divisions: the International Monitoring System Division, the International Data Centre Division and the On-Site Inspection Division. These are supported by a Legal and External Relations Division and a Division of Administration. The work of the Commission is conducted under the leadership of its Executive Secretary, and the Commission is financed mainly through assessed contributions by Member States.

10. As of April 2015, the Comprehensive Nuclear-Test-Ban Treaty Organization comprised 256 staff members from 78 countries. The number of staff in the Professional category was 169. The Provisional Technical Secretariat is committed to a policy of equal employment opportunity, aiming in particular at improving the representation of women, which currently account for 34.5 per cent of staff in the Professional category. The approved budget for the organization for 2015 amounts to \$38,011,400 and €70,287,200. From 1997 up to and including the financial year 2015, total budgetary resources approved amounted to \$1.113 billion and €596.4 million, of which 79.3 per cent has been dedicated to verification-related programmes, including \$429.7 million or 24.4 per cent for the Capital Investment Fund for the installation and upgrade of International Monitoring System stations.

Verification regime

11. The Comprehensive Nuclear-Test-Ban Treaty provides for the establishment of a unique global verification regime that consists of the International Monitoring System, a consultation and clarification process, on-site inspections, and confidence-building measures. Data from International Monitoring System stations are sent via a secure global satellite network known as the Global Communications Infrastructure. The data is routed from the satellites to hubs on the ground and then transmitted through terrestrial links to the International Data Centre for processing and analysis. All International Monitoring System data and International Data Centre products are made available to States.

12. Important progress has been made in areas such as the establishment and sustainment of the International Monitoring System, the improvement of International Data Centre processing methods and capabilities, the development of a more integrated and effective approach to the provisional operation and maintenance of the International Monitoring System, and the achievement of greater on-site inspections operational readiness, as demonstrated by the successful conduct

of the on-site inspections Integrated Field Exercise 2014. Finally, training and outreach activities have been pursued strategically through the implementation of integrated capacity-building, which seeks to improve the knowledge and capabilities of station operators, data users and other stakeholders, as well as the general scientific and diplomatic communities, to help further Comprehensive Nuclear-Test-Ban Treaty Organization strategic goals and missions.

International Monitoring System

13. The International Monitoring System is to consist of a network of 321 monitoring stations and 16 radionuclide laboratories. Those facilities collect data used to detect possible nuclear explosions and provide evidence thereof to Member States for verification of compliance with the Treaty. Since 2010, significant progress has been made towards the completion of the International Monitoring System network in all four technologies — seismic, hydroacoustic, infrasound and radionuclide. As of March 2015, 300 International Monitoring System stations have been installed. This represents 89 per cent of the total number of stations envisaged by the Treaty. Of these, 270 stations (84 per cent) and 11 radionuclide laboratories (69 per cent) have been officially certified as meeting the specifications of the Comprehensive Nuclear-Test-Ban Treaty Organization. This is an increase of 25 stations and 1 laboratory since 2010.

International Data Centre

14. The mission of the International Data Centre is to support the verification responsibilities of States by providing products and services necessary for effective global monitoring. Prior to entry into force, its task is to establish and test the facilities that will handle the data from the International Monitoring System stations. In this regard, provisional operation of as many stations as possible is crucial in developing International Data Centre data-processing capabilities pending entry into force of the Treaty. The data collected by the International Monitoring System stations are transmitted via the Global Communications Infrastructure to the International Data Centre and are made available to national data centres. Ensuring data availability and data quality are among the priority issues for the International Data Centre.

On-site inspections

15. On-site inspections are provided for in the Treaty as a final verification measure. The purpose of on-site inspections, which can be invoked only after entry into force, is to clarify whether a nuclear-weapon test or any other nuclear explosion has been carried out in violation of the Treaty and to gather facts, as far as possible, which might assist in identifying any possible violator. Inspections are likely to consist of field activities which would incorporate the use of visual, seismic, geophysical and radionuclide analysis techniques.

16. The Comprehensive Nuclear-Test-Ban Treaty Organization held the on-site inspections Integrated Field Exercise 2014 in Jordan between 3 November and 9 December 2014. There were 364 experts from 53 States signatories who participated in the Integrated Field Exercise 2014, the largest on-site inspections exercise to date. Teams in Austria and Jordan worked under realistic conditions to test all aspects of the on-site inspections regime. Over 150 tonnes of cargo were transported

by sea and air to the inspection area, including both specially designed Comprehensive Nuclear-Test-Ban Treaty Organization airfreight containers and over \$10 million in equipment provided by 10 States signatories and the European Union as in-kind contributions. Inspectors conducted 210 field missions and generated 413 gigabytes of data, using 15 of the 17 techniques permitted by the Treaty. Starting from a 1,000-square-kilometre area, the team was able to successfully identify both of the prepared target locations.

Events in the Democratic People's Republic of Korea

17. The Democratic People's Republic of Korea conducted an announced nuclear test on 12 February 2013, the third such event following the 2006 and 2009 announced nuclear tests. The event was automatically detected by 25 International Monitoring System seismic stations, whose data was made available to Member States approximately one hour after its receipt by the International Data Centre — more than 90 minutes before the Democratic People's Republic of Korea publicly announced the test. International Data Centre analysts then worked around the clock to complete the Reviewed Event Bulletin, which used International Monitoring System data from 94 seismic and 2 infrasound stations. The Reviewed Event Bulletin was released at 17:00 (UTC) on 13 February 2013, 31 hours in advance of the Treaty-specified deadline.

18. On 9 and 14 April 2013, the radionuclide station at Takasaki, Japan, detected a significant quantity of the Xe-133 and Xe-131m isotopes of the noble gas Xenon. The ratios of these isotopes were consistent with a fission event occurring approximately 55 days prior to the measurement, which coincides with the 12 February event. The radionuclide station in Ussuriysk, Russia, reported a similar detection at a lower level. Computer modelling performed by the International Data Centre indicated that the Democratic People's Republic of Korea's nuclear test site in Hamgyong Province was a likely point of origin for the detected radionuclides.

19. The improvements in system performance, timeliness and precision between October 2006, May 2009 and February 2013 are demonstrative of the achievements of the Comprehensive Nuclear-Test-Ban Treaty Organization in developing and operationalizing the Comprehensive Nuclear-Test-Ban Treaty verification regime. The system has proven to be a valuable investment by the Member States for ensuring that no nuclear test goes undetected.

Application of the International Monitoring System for purposes beyond verification

20. After the 2011 Great East Japan earthquake and tsunami, the Comprehensive Nuclear-Test-Ban Treaty Organization provided radionuclide data to assist with tracking the movement, dispersion and concentration of the radioactive plume released during the Fukushima Daiichi nuclear power plant accident. This data helped to assuage public concerns about possible health hazards and provided important diagnostic information regarding the state of the reactors.

21. The Comprehensive Nuclear-Test-Ban Treaty Organization actively engages with the scientific community at a variety of forums, including its own biennial Comprehensive Nuclear-Test-Ban Treaty Science and Technology Conference, the next of which will take place from 22 to 26 June 2015. The goals of the Conferences are to enlarge the scientific community engaged in test-ban monitoring, promote the

wider scientific application of data that are used for test-ban verification, and enhance the exchange of knowledge and ideas between the Comprehensive Nuclear-Test-Ban Treaty Organization and the broader scientific community.

Entry into force and universalization

22. Since the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, significant progress has been made by the Comprehensive Nuclear-Test-Ban Treaty Organization in the implementation of its mandate to facilitate ratification processes. As of March 2015, the Treaty had been signed by 183 States and ratified by 164 States, including 1 signature (Niue) and 13 ratifications since the 2010 Review Conference: Central African Republic, Trinidad and Tobago, Ghana, Guinea, Guatemala, Indonesia, Brunei Darussalam, Chad, Guinea-Bissau, Iraq, Niue, Congo and, more recently on 20 March 2015, Angola. By ratifying the Treaty on 6 February 2012, Indonesia brought the number of ratifying Annex 2 States to 36 out of 44. Member States and the Comprehensive Nuclear-Test-Ban Treaty Organization Secretariat continue to collaborate with a view to facilitating the signature and/or ratification of the remaining States, many of which are close to completing their respective statutory and/or constitutional procedures in this respect.

23. To ensure an innovative and focused approach to advance the ratification of the Comprehensive Nuclear-Test-Ban Treaty by the remaining Annex 2 States, a group comprising eminent personalities and internationally recognized experts was established on 26 September 2013 at United Nations Headquarters in New York. Through their expertise, experience and political standing, the group is tasked with supporting and complementing efforts to promote the Treaty's entry into force as well as reinvigorating international endeavours to achieve this goal.

24. Under article XIV, if the Treaty had not entered into force three years after its opening for signature, a conference of those States that had already ratified it could be held to decide by consensus what measures consistent with international law may be taken to accelerate the ratification process and to facilitate entry into force. States signatories would also be invited to attend the conference. Two such conferences have been convened since the 2010 Review Conference.

25. On 23 September 2011, 100 States signatories, as well as 1 observer State, attended the seventh Conference on Facilitating Entry into Force of the Comprehensive Nuclear-Test-Ban Treaty (Article XIV Conference). On 27 September 2013, the eighth Article XIV Conference was convened with representatives from 88 States signatories, and 1 observer State. During the first plenary meeting of the 2013 Article XIV Conference, a Final Declaration was adopted urging all States which had not done so to sign and/or ratify the Treaty without delay. The declaration included a number of measures to promote the entry into force of the Comprehensive Nuclear-Test-Ban Treaty.

26. In the course of the follow-up to the 2013 Article XIV Conference, and in accordance with paragraph 9 (c) of the Final Declaration, Hungary and Indonesia, which presided over that conference, were selected as coordinators of the process "to promote cooperation, through informal consultations with all interested countries, aimed at promoting further signatures and ratifications". The ninth

Article XIV Conference is scheduled to be held on 29 September 2015 in New York under the co-presidency of Japan and Kazakhstan.

Integrated capacity-building and outreach

27. The Comprehensive Nuclear-Test-Ban Treaty Organization offers Member States training courses and workshops in technologies associated with the International Monitoring System, International Data Centre and on-site inspections and on the political, diplomatic and legal aspects of the Treaty. In some cases, the Comprehensive Nuclear-Test-Ban Treaty Organization provides equipment to national data centres to increase their capacity to participate actively in the verification regime by accessing and analysing International Monitoring System data and International Data Centre products. By enhancing the technical capabilities of Member States, the Comprehensive Nuclear-Test-Ban Treaty Organization empowers all stakeholders to participate in the implementation of the Comprehensive Nuclear-Test-Ban Treaty on an equal footing, while enabling them to benefit from the civil and scientific applications of the Treaty's verification technologies. This programme is funded through the regular budget of the Comprehensive Nuclear-Test-Ban Treaty Organization as well as voluntary contributions. Over the past five years, more than 3,500 individuals — 34.5 per cent of whom were women — benefited from participating in the organization's capacity-building, training and education programme, including representatives from all but 1 Annex 2 State.

28. The purposes of Comprehensive Nuclear-Test-Ban Treaty Organization outreach activities also include promoting signature and ratification of the Treaty, and thereby its universality and entry into force, and enhancing general understanding of the Treaty among government officials, media, civil society and the general public. In promoting the entry into force and universality of the Treaty, the Secretariat has placed emphasis on those States listed in Annex 2 to the Treaty and on those States hosting International Monitoring System facilities.

29. In particular, since 2010, the Comprehensive Nuclear-Test-Ban Treaty Organization held cross-regional conferences in Morocco (2010), Turkey (2011) and Indonesia (2014), a national seminar in Angola (2013), workshops on national implementation measures in Vienna (2011, 2012 and 2013) and scientist-to-scientist workshops in China (2011) and the United States of America (2013). In addition, several information visits for representatives from selected non-ratifying States were held at Comprehensive Nuclear-Test-Ban Treaty Organization headquarters in Vienna.

2015 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons

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Implementation of article VI

Report submitted by the Islamic Republic of Iran

1. The present report is submitted in accordance with action 20 of the action plan on nuclear disarmament, adopted at the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons. Accordingly, it contains the list of measures taken by the Islamic Republic of Iran, during the period between the 2010 and 2015 Review Conferences, to implement article VI of the Treaty, paragraph 4 (c) of the 1995 decision on the principles and objectives for nuclear disarmament and non-proliferation, the practical steps agreed to in the Final Document of the 2000 Review Conference, and the action plan on nuclear disarmament adopted at the 2010 Review Conference, taking into account the advisory opinion of the International Court of Justice of 8 July 1996.
2. The Islamic Republic of Iran believes that reporting, as envisaged in actions 5 and 20 of the action plan of the 2010 Review Conference, is a useful means to assess the status of implementation of obligations assumed under article VI of the Treaty, and the unequivocal undertakings committed by the nuclear-weapon States, in the 2000 and 2010 Review Conferences of the Treaty. At the same time, while the objectivity of such an assessment can in fact be best served through the adoption of a unified format that properly defines the categories of required information, this mechanism cannot and shall not substitute for the fulfilment of the obligation for nuclear disarmament under article VI of the Treaty.
3. Iran signed and ratified the Non-Proliferation Treaty in 1969 and 1970. In accordance with article III (1) of the Treaty, Iran also concluded a comprehensive safeguards agreement with the International Atomic Energy Agency (IAEA) in June 1973. The ratification of the Treaty before its entry into force and the early conclusion of the safeguards agreement with the Agency by Iran clearly demonstrate its long-standing support and commitment to the objectives of this instrument.
4. In 1974, Iran presented the idea of establishing a nuclear-weapon-free zone in the Middle East. Since then, the proposal has been annually endorsed by the General Assembly in its resolutions. The Islamic Republic of Iran has also signed the Comprehensive Nuclear-Test-Ban Treaty in 1996.



5. The Islamic Republic of Iran has fulfilled its obligations under all the provisions of the Treaty with the aim of helping its integrity and universality and achieving its fundamental objectives. The policy of the Islamic Republic of Iran to renounce the nuclear option as a matter of principle and to place its peaceful nuclear facilities under the full-scope safeguards of IAEA is a clear manifestation of its commitment to the Treaty. The Islamic Republic of Iran considers the acquisition, development and use or threat of use of nuclear weapons to be inhuman, immoral, illegal and against its very basic principles. Accordingly, nuclear weapons have no place in the defence doctrine of the Islamic Republic of Iran.

6. The Islamic Republic of Iran attaches great importance to the implementation of nuclear disarmament obligations under article VI of the Treaty, the fulfilment of which is one of the fundamental objectives of this instrument and can greatly contribute to enhancing international peace and security. It is deeply disappointing, however, that the nuclear disarmament obligations under the Treaty, as well as the unequivocal undertakings committed by the nuclear-weapon States in the 2000 and 2010 Review Conferences, have remained unfulfilled.

7. As the International Court of Justice has stipulated in its advisory opinion of 8 July 1996 on the Legality of the Threat or Use of Nuclear Weapons, the threat or use of nuclear weapons would generally be contrary to the rules of international law, and there exists an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control. While emphasizing the importance and validity of this advisory opinion with regard to the obligations of States parties under article VI of the Treaty, Iran calls upon the nuclear-weapon States that have the primary responsibility in this regard to implement their long overdue obligations on nuclear disarmament. The full compliance by the nuclear-weapon States with their nuclear disarmament obligations and commitments is essential for progress in nuclear disarmament.

8. As a party to the Treaty, the Islamic Republic of Iran continues its compliance with the Treaty, including obligations under its article VI. The measures that have been taken, from the 2010 to 2015 Review Conferences, by the Islamic Republic of Iran to implement article VI of the Treaty, paragraph 4 (c) of the 1995 decision on principles and objectives for nuclear disarmament and non-proliferation, the practical steps agreed to in the Final Document of the 2000 Review Conference, and the action plan on nuclear disarmament adopted at the 2010 Review Conference, taking into account the advisory opinion of the International Court of Justice of 8 July 1996, are, among others, as follows:

(a) During the period, the Islamic Republic of Iran continued to actively participate in international efforts to promote nuclear disarmament. Initiatives taken towards this noble goal have always enjoyed Iran's full support. In this regard, in 2011 and 2013, the Islamic Republic of Iran presented two draft resolutions to the General Assembly, on the follow-up to nuclear disarmament obligations agreed to at the 1995, 2000 and 2010 Review Conferences of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, which were adopted as resolutions 66/28 and 68/35. By virtue of those resolutions, the Assembly, *inter alia*, called for all the nuclear-weapon States to take the following practical steps, which would lead to nuclear disarmament:

- (i) Further efforts to be made by the nuclear-weapon States to reduce their nuclear arsenals unilaterally;
 - (ii) Increased transparency by the nuclear-weapon States with regard to nuclear weapons capabilities and the implementation of agreements pursuant to article VI of the Treaty and as a voluntary confidence-building measure to support further progress in nuclear disarmament;
 - (iii) The further reduction of non-strategic nuclear weapons, based on unilateral initiatives and as an integral part of the nuclear arms reduction and disarmament process;
 - (iv) Concrete agreed measures to reduce further the operational status of nuclear weapons systems;
 - (v) A diminishing role for nuclear weapons in security policies so as to minimize the risk that these weapons will ever be used and to facilitate the process of their total elimination;
 - (vi) The engagement, as soon as appropriate, of all the nuclear-weapon States in the process leading to the total elimination of their nuclear weapons;
- (b) In 2012, the Islamic Republic of Iran, along with the other members of the Movement of Non-Aligned Countries, was one of the sponsors of General Assembly resolution 67/39 on the high-level meeting of the General Assembly on nuclear disarmament, by which the Assembly decided, inter alia, to convene a high-level meeting of the General Assembly on nuclear disarmament, on 26 September 2013, to contribute to achieving the goal of nuclear disarmament;
- (c) In pursuance of its long-standing principled position in support of nuclear disarmament, the President of the Islamic Republic of Iran, Hassan Rouhani, participated in the first-ever high-level meeting of the General Assembly on nuclear disarmament, on 26 September 2013, and presented, on behalf of the 120 States members of the Non-Aligned Movement, a three-point proposal on nuclear disarmament. The proposal was supported by many of the representatives of political and geographical groups, Member States and civil society participating in that meeting and was subsequently adopted by the Assembly in its resolutions 68/32 and 69/58 on the follow-up to the 2013 high-level meeting of the Assembly on nuclear disarmament. Through those resolutions, the Assembly:
- (i) Called for the urgent commencement of negotiations in the Conference on Disarmament for the early conclusion of a comprehensive convention on nuclear weapons to prohibit their possession, development, production, acquisition, testing, stockpiling, transfer, use or threat of use and to provide for their destruction;
 - (ii) Decided to convene, no later than 2018, a United Nations high-level international conference on nuclear disarmament to review the progress made in that regard;
 - (iii) Declared 26 September as the International Day for the Total Elimination of Nuclear Weapons devoted to furthering that objective, including through enhancing public awareness and education about the threat posed to humanity by nuclear weapons and the necessity for their total elimination, in order to

mobilize international efforts towards achieving the common goal of a nuclear-weapon-free world;

(d) In order to promote the cause of nuclear disarmament, the Islamic Republic of Iran held two international conferences on nuclear disarmament and non-proliferation, which were held in Tehran on 17 and 18 April 2010 and on 12 and 13 June 2011, at which the current challenges to the implementation of nuclear disarmament commitments were examined and mechanisms to realize the lofty goal of a nuclear-weapon-free world were sought;

(e) During the period, and along with the other members of the Non-Aligned Movement, the Islamic Republic of Iran continued to vote in favour of General Assembly resolutions on the follow-up to the advisory opinion of the International Court of Justice on the legality of the threat or use of nuclear weapons;

(f) The Islamic Republic of Iran was among the initiators and cosponsors of the idea of promoting the humanitarian aspects of nuclear weapons and, based on its principled position on renunciation of nuclear weapons, especially taking into account the religious prohibition of these inhumane weapons, has actively participated in the three conferences on the humanitarian impacts of nuclear weapons, held in Oslo in 2013, in Nayarit, Mexico, in February 2014, and in Vienna in December 2014;

(g) During the period, the Islamic Republic of Iran continued to actively participate in annual substantive sessions of the Disarmament Commission of the United Nations and fully supported its agenda item on recommendations for achieving the objective of nuclear disarmament and non-proliferation of nuclear weapons;

(h) Likewise, during the period, the Islamic Republic of Iran continued to actively participate in the work of the Conference on Disarmament. Iran strongly believes that the Conference on Disarmament, as the sole multilateral disarmament negotiating body, should uphold its credibility and maintain its relevancy to international peace and security despite its current difficulties. To that end, during its presidency of the Conference on Disarmament in 2013, Iran's main focus was to reach an agreement on a comprehensive and balanced programme of work. To that end, Iran undertook its outmost efforts to consult almost all the members of the Conference. Accordingly, the common denominator of all positions was reflected in document CD/1952 as a proposal of Iran for the programme of work of that year of the Conference;

(i) Moreover, the Islamic Republic of Iran has contributed to the work of Conference on Disarmament, in particular its agenda item on nuclear disarmament, including through its active participation in preparing and submitting the working paper of the Group of 21 on nuclear disarmament in 2010 and subsequent years;

(j) During the period, the Islamic Republic of Iran continued to fully support all international and regional efforts towards the establishment of a nuclear-weapon-free zone in the Middle East. Likewise, Iran maintained its principled position to vote in favour of all resolutions on the establishment of such a zone, including in the General Assembly, the IAEA General Conference and the summits and ministerial conferences of the Organization of Islamic Cooperation. In this context, the Islamic Republic of Iran, including through several rounds of consultations with the Facilitator, participated in the preparation process for the

conference on the establishment of a nuclear-weapon-free zone in the Middle East, as decided by the 2010 Review Conference of the Treaty and, in 2012, officially declared its readiness to participate therein, which, regrettably, was not convened owing only to the refusal of the Israeli regime to participate in that Conference;

(k) The Islamic Republic of Iran also actively participated in the meetings of the Preparatory Committee for the 2015 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons in 2012, 2013 and 2014 and submitted three reports on the implementation of article VI of the Treaty, paragraph 4 (c) of the 1995 decision on principles and objectives for nuclear disarmament and non-proliferation, the practical steps agreed to in the Final Document of the 2000 Review Conference and the action plan on nuclear disarmament adopted at the 2010 Review Conference. Iran also submitted three working papers on nuclear disarmament to those meetings;

(l) The Islamic Republic of Iran participated, at the ministerial level, and made a statement at the High-level Meeting on Nuclear Safety and Security held on 22 September 2011;

(m) Likewise, the Islamic Republic of Iran participated, at the ministerial level, and made a statement at the High-level Meeting on Countering Nuclear Terrorism, with a Specific Focus on Strengthening the Legal Framework, held on 28 September 2012;

(n) The Islamic Republic of Iran also actively participated in the meetings of the open-ended working group to develop proposals to take forward multilateral nuclear disarmament negotiations for the achievement and maintenance of a world without nuclear weapons in 2013 and, in addition to making several proposals during the meetings of the working group, submitted a working paper on taking forward multilateral nuclear disarmament negotiations;

(o) The Islamic Republic of Iran participated, at the ministerial level, and made a statement at the informal session of the General Assembly convened on 26 September 2014 on the occasion of the first International Day for the Total Elimination of Nuclear Weapons;

(p) During the period, the Islamic Republic of Iran conducted several rounds of bilateral dialogue, on promoting the implementation of treaties banning weapons of mass destruction, with some nuclear and non-nuclear-weapon States parties to the Treaty, in which, particular importance was attached to nuclear disarmament and the need for intensive international efforts towards the early realization of a nuclear-weapon-free world.

2015 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons

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Substantive matters before the Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons

Paper submitted by the Syrian Arab Republic

I. Non-proliferation of nuclear weapons

1. Syria was keen to be among the first States in the Middle East region to accede to the Treaty on the Non-Proliferation of Nuclear Weapons in 1968 based on its conviction that the acquisition of nuclear weapons by any State, or access to nuclear weapons by any nongovernmental entity or terrorist group, threatens regional and international security and peace. Syria has affirmed, in all international forums, its continuing commitment to its international undertakings under the Treaty, which it considers the cornerstone of the non-proliferation regime and an international reference that accords the States parties the inalienable right to acquire nuclear technology for various peaceful applications.

2. The Syrian Arab Republic recalls that the resolution to extend the Treaty indefinitely, which was adopted in the 1995 Treaty Review Conference, would not have been possible had it not been for the understanding reached at the time whereby the nuclear-weapon States committed to a review of the concerns of many States parties in the Middle East region, particularly the need to pressure the Israeli entity, which lies outside international supervision, to accede to the Treaty, place all its nuclear installations under comprehensive safeguards unconditionally and without further delay and eliminate all its military nuclear capabilities to pave the way for establishing a Middle East nuclear-weapon-free zone. However, the review has not been conducted to date.

3. The Syrian Arab Republic expresses its deep concern over the failure to achieve the objectives of the Treaty. It expresses its hope that the Final Document of the 2015 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons will include serious, effective demands in respect of:

(a) Achievement of the universality of the Treaty and maintenance of the credibility of the Treaty;

* Reissued for technical reasons on 20 April 2015.



(b) The balanced treatment of issues relating to non-proliferation and full, comprehensive nuclear disarmament;

(c) Action to halt the use of double standards and the selective use of standards. Such action will protect the inalienable right of all States parties to the Treaty to the use of nuclear energy for various peaceful applications without discrimination;

(d) The immediate exertion of pressure on the Israeli entity to accede to the Treaty promptly and unconditionally as a non-nuclear-weapon Party and place all its nuclear installations under international inspection based on its compliance with the comprehensive safeguards of the International Atomic Energy Agency (IAEA); rejection of the granting of international legitimacy to the Israeli entity's nuclear military capabilities; and a demand that it comply with relevant UN resolutions, the most important being:

- The operative paragraph 5 of Security Council resolution 487 (1981), which calls upon Israel to immediately place its nuclear installations under the IAEA safeguards regime;
- The resolution adopted by the IAEA General Conference in 2009, GC (53)/RES/17 (Israeli nuclear capabilities), which expresses the IAEA's concern in respect of Israeli nuclear capabilities and calls upon Israel to accede to the Treaty; and the resolution adopted by the IAEA in 2014, GC (58)/RES/16 (Application of IAEA safeguards in the Middle East), which calls upon all States to accede to the Treaty;
- General Assembly resolution 69/78 (2014) (Risk of nuclear proliferation in the Middle East), which points to the importance of the Israeli entity's accession to the Treaty as an important measure for building confidence among all States of the region and a step towards the enhancement of peace and security;

(e) Obtainment of a commitment from the nuclear-weapon States under article I of the Treaty to refrain from transferring any nuclear weapons or other nuclear explosive devices or control thereof directly or indirectly to the Israeli entity; and to refrain from assisting, encouraging or inducing in any way the Israeli entity to manufacture or otherwise acquire or gain control of nuclear weapons or other nuclear explosive devices;

(f) Action to halt technical cooperation programmes which the IAEA provides to the Israeli entity until the latter accedes, without delay and without conditions, to the Treaty as a non-nuclear-weapon State and places all its nuclear installations under the comprehensive safeguards of the IAEA as an essential precondition for resuming technical cooperation programmes with the IAEA.

II. Nuclear disarmament

4. The Syrian Arab Republic affirms the need for the nuclear-weapon States to comply with article VI of the Treaty and the 13 points adopted in the Final Document of the 2000 Review Conference. The Syrian Arab Republic expresses its concern over the nuclear-weapon States' continued development and proliferation of nuclear warheads, which conflicts with the Treaty and United Nations General Assembly resolutions on nuclear disarmament issues, the last being General

Assembly resolution 68/35 of December 2013 (Follow-up to nuclear disarmament obligations agreed to at the 1995, 2000 and 2010 Review Conferences of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons). Certain nuclear-weapon States continue to openly develop their nuclear weapons. In some cases, such States are acting to reduce such weapons by decommissioning them but without eliminating or destroying them, which contravenes the Treaty. It is therefore essential for such nuclear-weapon States to act immediately to halt horizontal and vertical proliferation by demonstrating an earnest political will under strict international supervision, because the continued existence of such weapons threatens international peace and security and raises the deepest concern.

5. The Syrian Arab Republic affirms the importance of serious action to negotiate the formulation of a comprehensive, non-discriminatory, multilateral and internationally and effectively verifiable treaty to eliminate the stock of nuclear weapons and fissile material and ban the production of any fissile material used in the production of nuclear weapons or other nuclear explosive devices as a primary step towards nuclear disarmament and affirmation of nuclear non-proliferation.

6. The Syrian Arab Republic calls upon all States to declare and adhere to a voluntary halt to the production of fissile material for nuclear weapons pursuant to General Assembly resolution 69/52 of December 2014 (United action towards the total elimination of nuclear weapons).

7. The Syrian Arab Republic, seeking to uphold the credibility and spirit of the Treaty, emphasizes the need for the 2015 Treaty Review Conference and its preparatory committees to examine the concerns of the non-nuclear-weapon States as expressed in their national reports.

III. The use of nuclear energy for peaceful purposes

8. The Syrian Arab Republic affirms the need to enforce article IV of the Treaty in a balanced, non-selective manner. That article accords all States parties the inalienable right to obtain nuclear technology for various peaceful applications in health, industry, agriculture, economic development and scientific research. The Syrian Arab Republic supports the inclusion of this right in the Final Document of the current preparatory session to preclude any new interpretations that may conflict with the spirit of the Treaty and undermine its credibility.

9. The Syrian Arab Republic reaffirms the need to uphold the primary role of the IAEA as provided in its Statute, which is to promote the use of nuclear technology, facilitate the interchange of information, equipment, materials and scientific services, encourage and assist the States parties in conducting scientific research for peaceful purposes and provide them with technical assistance. The Syrian Arab Republic stresses the need to avoid placing any political, economic or military restrictions or any other conditions that conflict with the Statute of the IAEA on the cooperation and technical assistance provided by the IAEA to States parties, particularly developing States.

10. The Syrian Arab Republic affirms the need to achieve a just equilibrium between the IAEA's verification activities and its activities concerning the dissemination of nuclear technology and applications in order to uphold the provisions of article III of the Treaty. Article III affirms the close relationship

between verification issues under IAEA comprehensive safeguards agreements and the peaceful use of nuclear energy. It requires that safeguards agreement concluded with a State party comply with article IV of the Treaty and avoid hampering the economic or technological development of the Parties or international cooperation in the field of peaceful nuclear activities.

11. The Syrian Arab Republic supports the IAEA and its mandate to discharge its assigned functions within the three main areas of the Treaty, namely non-proliferation, nuclear disarmament, and the use of nuclear energy for peaceful purposes.

IV. Comprehensive safeguards agreement

12. The Syrian Arab Republic affirms that it complies fully with the provisions of the Comprehensive Safeguards Agreement which it concluded with the IAEA in 1992 under the Treaty. Under that agreement, Syria established a national system for accounting for and monitoring nuclear material as well as the groundwork and facilities needed to ensure the ability of IAEA inspectors to engage effectively under the agreement since that date.

13. The Syrian Arab Republic affirms the importance of the comprehensive safeguards agreements. It urges all States that have not yet concluded such an agreement to do so promptly to achieve the universality of comprehensive safeguards, which the 2000 Treaty Review Conference sets forth as a primary objective for consolidating and strengthening the verification activities in the non-proliferation regime.

14. The Syrian Arab Republic is of the opinion that additional safeguard measures should not affect the rights of non-nuclear-weapon States parties that have in fact complied with the nuclear non-proliferation standards. The Syrian Arab Republic strongly rejects attempts by any member State to use the IAEA technical cooperation programme to achieve political ends in contravention of the Statute of the IAEA.

15. The Syrian Arab Republic affirms that the IAEA alone is authorized to verify and ensure the compliance of the States parties with the safeguards agreements concluded with them. The Syrian Arab Republic believes that the IAEA must apply its verification regimes to all member States without exception or discrimination as stipulated by the Statute of the IAEA. The IAEA must rely — when evaluating the results of verification activities — on documented, confirmed information to the exclusion of open sources, presumptive information, intelligence information and the like to maintain the Agency's neutrality, credibility and professionalism.

16. The Syrian Arab Republic affirms the need for the IAEA to safeguard the confidentiality of all information which it collects during its inspections in, or receives from, a State.

17. The Syrian Arab Republic condemns American-Israeli cooperation, which represents a failure by the United States to comply with its obligations under articles I and II of the Treaty. The secret nuclear assistance which the American Government provides to the Israeli entity is a source of serious concern, not only for the States of the Middle East region, but also for all States parties to the Treaty. It violates international obligations under article I of the Treaty and does not comply with article III, paragraph (2) of the Treaty, under which a State party to the Treaty

may cooperate in providing equipment or materials for peaceful purposes only if such materials are subject to safeguards under the Treaty. The United States' contravention of its obligations truly threatens international and regional peace and security. Therefore, we hope that the Final Document of the 2015 Review Conference of the States parties will include a resolution that forcefully calls for the banning and halting of such cases of non-compliance and the legal sanctioning of the noncompliant parties according to the policy of balance and non-selectivity to preserve the credibility of the Treaty.

18. The Syrian Arab Republic calls upon all States that are not parties to the Treaty to accede to the Treaty as non-nuclear-weapon States unconditionally and without further delay and to place all their nuclear facilities under the comprehensive safeguards of the IAEA according to the Statute of the IAEA to ensure achievement of the primary objective of verifying the nuclear-weapon States' fulfilment of their obligations under the Treaty.

19. The Syrian Arab Republic affirms the need to maintain a distinction between the legal obligations of the States parties and voluntary, confidence-building measures, as provided in the Final Document of the last Treaty Review Conference held in New York in May 2010. That document stresses that the conclusion of an additional protocol is voluntary. Thus, all States must avoid unjustified confusion between voluntary and mandatory measures to ensure the credibility of international resolutions and preclude the conversion of voluntary commitments into commitments involving mandatory safeguards.

V. Middle East nuclear-weapons-free zone

20. The Syrian Arab Republic affirms that the establishment of a Middle East nuclear-weapon-free zone is an important disarmament measure that would strengthen the non-proliferation regime, help consolidate peace and security regionally and internationally and preserve the credibility of the Treaty.

21. The Syrian Arab Republic believes that the establishment of regional nuclear-weapon-free zones is a positive step and an effective contribution to the achievement of the objectives of nuclear non-proliferation and disarmament as a prelude to creating a safe, stable world. The Syrian Arab Republic looks to the international community to adopt practical, effective steps to establish a Middle East nuclear-weapon-free zone without further delay.

22. The Syrian Arab Republic has acted in various Arab and international forums to establish a Middle East zone free of weapons of mass destruction, particularly nuclear weapons. In April 2003, it submitted, on behalf of the Group of Arab States, an initiative to the Security Council in New York to eliminate weapons of mass destruction, particularly nuclear weapons, from the Middle East. At that time, the Syrian Arab Republic declared to the international community that it would collaborate with fraternal Arab States and peace-loving countries of the world to effectively transform the Middle East into a weapons-of-mass-destruction-free zone. However, the positions of certain influential States on the Security Council impeded that initiative, which the Syrian Arab Republic resubmitted to the Security Council in December 2003. The Syrian Arab Republic continues to seek to revive and implement the initiative.

23. The Syrian Arab Republic sees a need to pressure the Israeli entity to accede to the Treaty and to subject all its nuclear installations to IAEA inspection. The Israeli entity disregards all relevant resolutions of the United Nations Security Council and General Assembly, the last being General Assembly resolution 69/29 of December 2014 (Establishment of a nuclear-weapon-free zone in the region of the Middle East) and General Assembly resolution 69/78 of December 2014 (The risk of nuclear proliferation in the Middle East). Moreover, the Israeli entity disregards resolutions of the IAEA and Treaty Review Conferences, thwarting efforts to establish a Middle East nuclear-weapon-free zone.

24. In this context, the Syrian Arab Republic affirms the need to not in any way link the establishment of a Middle East nuclear-weapon-free zone to the peace process in the region. It reiterates that any reference to the defining of the countries of the Middle East region for this purpose in no way constitutes a definition of the Middle East region but rather serves solely for the purposes of the 2015 Treaty Review Conference and its preparatory committees.

VI. 2012 international conference concerned with implementing the Resolution on the Middle East adopted by the 1995 Review and Extension Conference of the Parties to the Treaty

25. The Syrian Arab Republic again calls for the full implementation of the 1995 Resolution on the Middle East. That resolution, which is an integral part of a package that includes one decision and three resolutions adopted without a vote, contributed to the indefinite extension of the Treaty in 1995. That extension would not have been adopted had it not been for the commitments assumed by certain influential States in the Security Council to examine the concerns of the States, particularly the developing States. However, unfortunately, these concerns were not examined and the 1995 resolution was not implemented. It is thus necessary to honour the Final Document of the 2000 Treaty Review Conference, which affirms that the 1995 Resolution on the Middle East will remain valid until its goals and objectives are achieved.

26. The Syrian Arab Republic expresses its regret over the failure to convene the 2012 international conference adopted in the Final Document of the 2010 Treaty Review Conference. That conference was intended to address the establishment of a zone free of nuclear weapons and other weapons of mass destruction in the Middle East with the attendance of all States of the Middle East. At that time, the Syrian Arab Republic welcomed the hosting of the conference, anticipated in 2012, by the Government of Finland. It cooperated with Mr. Jaakko Laajava, the facilitator assigned to coordinate the conference according to his mandate as adopted in the Final Document of the 2010 Treaty Review Conference.

27. The failure to convene in 2012 a conference on the establishment a Middle East nuclear-weapon-free zone, as called for by the 2010 Treaty Review Conference, was caused by the rejection by Israel and the United States of all invitations to participate in the conference, which affected the credibility of the relevant authoritative international resolutions. Israel's refusal merely to participate in the conference accords with its policy of systematically rejecting authoritative

international resolutions and affirms its lack of seriousness or a sincere desire to establish the zone.

28. The failure to hold the 2012 conference on the establishment of a Middle East nuclear-weapon-free zone reaffirms the responsibility of the Security Council to pressure Israel to: establish such a zone, especially as the Treaty depositary States enjoy permanent Security Council membership; accede to the Treaty; eliminate its nuclear arsenal and the means for delivering it; and place all its nuclear activities under a comprehensive safeguards agreement with the IAEA according to Security Council resolution 487 (1980).

29. The Syrian Arab Republic believes that the success of the 2015 Treaty Review Conference will depend primarily on the full implementation of the Resolution on the Middle East adopted by the 1995 Treaty Review and Extension Conference. It will also depend on all concerned parties fully undertaking to establish a zone in the Middle East that is free of nuclear weapons and all weapons of mass destruction. Otherwise, the credibility of the entire Treaty will be compromised.

VII. Negative security assurances

30. The Syrian Arab Republic affirms that only the complete elimination of all nuclear weapons can provide an absolute guarantee against the use or threat of use of nuclear weapons and that the indefinite extension adopted in 1995 does not in any way imply that the nuclear-weapon States will retain their nuclear arsenals indefinitely, which would be inconsistent with the safety and sustainability of the nuclear non-proliferation regime vertically and horizontally and with the objective of maintaining regional and international security and stability.

31. The Syrian Arab Republic believes that the Final Document of the 2015 Treaty Review Conference must include effective international arrangements for arriving at a legally binding international-security-assurances instrument under which the nuclear-weapon States would commit to providing unconditional security assurances to the non-nuclear-weapon Parties to the Treaty not to use or threaten to use nuclear weapons against them pursuant to United Nations General Assembly resolution 69/30 of December 2014 (Conclusion of effective international arrangements to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons).

32. The Syrian Arab Republic again calls for the establishment of a working group to monitor the five nuclear-weapon States' provision of legally binding negative security assurances to the non-nuclear-weapon States parties to the Treaty in preparation for arriving at an international instrument that bans the use or threat of use of nuclear weapons under any circumstances pursuant to United Nations General Assembly resolution 68/58 of December 2013 (Convention on the Prohibition of the Use of Nuclear Weapons).

VIII. Illegal trafficking of radioactive and nuclear materials

33. The Syrian Arab Republic conducts, pursuant to its national legislation and regulations, the close monitoring of land, sea and air border crossings to combat illegal trafficking in radioactive nuclear materials.

34. The Syrian Arab Republic scrupulously upholds all of its relevant international commitments. It participates effectively in the review of a number of relevant international conventions and instruments and seeks to continue to strengthen its national legislative frameworks in this regard. The Syrian Arab Republic applies the IAEA's Code of Conduct on the Safety and Security of Radioactive Sources. It participates actively in a number of meetings concerning the development of guidelines for the importation and exportation of radioactive sources.

IX. Withdrawal from the Treaty

35. The Syrian Arab Republic believes that withdrawal from the Treaty is a sensitive issue and must be accorded serious attention, because any proposal to amend article X of the Treaty would deprive the Treaty of its credibility and destroy the entire non-proliferation regime unless all States parties explicitly declare their intent to comply mandatorily with and ratify any new amendment. Otherwise, any such amendment would have no basis in international law.

36. The Syrian Arab Republic calls upon the States parties to focus on the main priorities of the Treaty — such as achieving the universality of the Treaty, completely eliminating thousands of nuclear warheads and halting the production of most advanced weapons that threaten humanity — before taking up the matter of article X, because, if the community gives priority and serious concern to such priorities, no State would consider withdrawing from the Treaty, which is supposed to regulate disarmament and non-proliferation issues and peaceful uses in a fair, balanced manner.
